

## OUTTURN OF BHADOI CROPS, 1890.

The following is published for general information.

REVENUE DEPT., AGRICULTURE,

CALCUTTA:

The 4th November 1890.

By order of the Lieut.-Govr. of Bengal,

P. NOLAN,

Secretary to the Govt. of Bengal.

*Note on the Outturn of the Bhadoi Crops, 1890.*

THE character of the rainfall during the past *bhadoi* season was described in the preliminary forecast of the winter rice crop. In the latter half of June, after the monsoon had set in, the fall was abnormally heavy in all parts of the Province. During July and August it was again very heavy and continuous in North Bengal and North Behar, moderately heavy in South Behar, and nearly normal in Chutia Nagpur, but on the whole deficient in Orissa, South-West and Eastern Bengal, and especially in a tract in the south of the Province, including Singbhoom, Balasore, Midnapore, Hooghly, and the 24-Pergunnahs.

The excessive rain which fell in the latter half of June directly after the *bhadoi* crops had been sown, and also in July and August, seriously damaged these crops in South and North Behar, and to a less extent in the northern districts of Bengal, in Chittagong, Noakhally, Tipperah, Hooghly, Manbhoom, Pooree, and parts of Cuttack. The damage from this cause was greatest in South and North Behar. The loss from excessive rain was intensified by floods in some of the riparian tracts in which the winter rice crop also seriously suffered from this cause.

In Hooghly, Midnapore, Balasore, and parts of Cuttack the *bhadoi* crops are reported to have suffered to the extent of 4 annas, owing to deficiency of rain in July and August.

There are very few districts in Bengal in which the *bhadoi* crops have not suffered from one cause or another, and in most districts of Behar, in parts of Nuddea, Khoolna, Moorshedabad, Jessore, Furreedpore, Hazaribagh, and Cuttack, the reported loss varies from 7 to 14 annas. Taking the Province as a whole, the outturn is not expected to be more than 10 annas.

The tracts in which both the *bhadoi* food crops and winter rice have been seriously damaged are shown in the following statement:—

Names of districts and subdivisions.	Outturn of winter rice in annas.	Outturn of <i>bhadoi</i> crops in annas.	Remarks as to last year's stocks (vide final report of the wheat crops for 1889-90).
Khoolna	11	7	The produce of last year's food-grains was below the average. The district exports rice largely in ordinary years.
NUDDEA—			
Sudder	8	4	The produce of last year's food-grains was below the average.
Kushies	10	5	
Meherpore	7	5	
Chuadanga	1	1	
Ranaghat	10	5	
JESSORE—			Ditto. ditto.
Bongong	6	6	
Jhenidah	8	6	Ditto ditto.
MOORSHEDABAD—			
Sudder	12	4	The produce of last year's food-grains was on the whole average. The <i>bhadoi</i> crops occupy about 1/4 of the total cultivated area, and the winter rice less than half. The remainder is under <i>rabi</i> crops. The flooded areas will be available for <i>rabi</i> sowings. If these do well, as they are expected to do, there need be no apprehension of scarcity.
Lalbagh	10	4	
PATNA—			The produce of last year's food-grains was below the average. The remarks with regard to Patna apply to this district.
Sudder	12	3	
Dinapore	10	4	The produce of last year's food-grains was about the average. There will be undoubtedly distress among the poorer classes, especially in the Sudder subdivision, in spite of a good <i>rabi</i> harvest that may follow.
MOOCYFERPORA—			
Sudder	10	6	Last year's produce was below the average—vide remarks against Patna, which apply also here.
Hazipore	10	6	
SARAN—			
Sudder	24	2	
Sewan	10	4	
Gopalpura	11	5	
MURSHIDABAD—			
Begunserai	8	3	

There is cause for watchfulness on the part of the authorities in the tracts above mentioned, especially in the Sudder and Chuadanga sub-divisions of Nuddea, and in the Sudder sub-division of the Sarun district; but the Collectors of Nuddea and Sarun are of opinion that there is as yet no apprehension of scarcity in those districts.

In the flooded tracts of Behar there may be distress in the event of failure of the next *rabi* harvest, of which, however, there is at present no likelihood. Abundant rain having fallen over the whole Province in September, and the first-half of October, the prospects of the winter rice crop are assured.

M. FINUCANE,

Director of the Department of Land Records

and Agriculture, Bengal.

The 30th October 1890.

*I(a).—First forecast of khadar crops in Bengal*

District.	Sub-division.	3	4	5	6	7	8	9	10	11	12
		Total area of sub-division in square miles.	Total area cultivated to be under cultivation in square miles.	Approximate normal area under bhadoi crops.	Approximate area under bhadoi crops, year's	Estimated area under this year's bhadoi crops.	Names of principal bhadoi crops.	Taking 10 annas to represent the average outturn, how many annas will represent late year's outturn.	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn.	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.
BURDWAN											
	Sudder	1,343	800	130	111	130	Early paddy— Aus, kelash and pechali	10	18	The crops were partially affected by excess of rainfall at the sowing time and by floods before harvesting time.	
	Rangoonpore	671	304	30	30	30	Aus paddy Biri kela	13	16		
	Cuttack	303	203	25	25	25	Early paddy— Terra Mabali Jhansi Kakal	8	12		
	Chitral	437	334	100	50	100	Aus paddy	10	16		
	District Total	2,697	2,046	202	243	295		104	14		
BALASORE											
	Sudder	1,381	676	46	45	45	Early paddy— Aus, kelash, telko and chail	14	16	Deficiency of rainfall in the month of Sriban (July-August) affected the crops of last year, whereas in the current year the weather has been favourable from the beginning. A bumper crop is expected if the weather continues to be as favourable as it has been up to date.	In August the rainfall was much short of the normal (4.25 against 13.5), but it was quite sufficient for the bhadoi crops. Ditto ditto.
	Bishnupore	700	330	43	43	43	Aus and kelash paddy	16	20		
	District Total	2,621	1,006	88	88	88		15	18		
BIRAPUR											
	Sudder	1,108	777	172	173	157	Bhadoi paddy— Aus, bora Terra Bhidoi paddy— Aus, kharma Kharapal Boroum Kharal Bhoram	16	20	The rainfall was sufficient and timely. More than an average crop is expected.	In the latter half of June and through-out July the rainfall was considerably in excess and incessant in the Sudder sub-division. In the Rampore Hat sub-division there was considerable excess in June, but in July the fall was nearly normal. Some damage is likely to have been caused by excess of rainfall in the Sudder sub-division.
	Rampore Hat	645	460	70	64	65		15	20		
	District Total	1,753	1,236	242	237	225		More than 15	20		
MIDNAPORE											
	Sudder	3,253	1,790	413	300	320	Aus paddy Til Jowar Biri Aus paddy Biri Til Hemp Jute Aus paddy Aus paddy Jhansi and gull amia	134	9	Deficiency of rainfall at harvesting time is the cause of short outturn.	In July and August taken together, the rainfall was deficient all over the district, particularly in the Sudder and Conai sub-divisions; the mean actual rainfall of the district during these two months having been 13.57 against 27.0 inches. In May the fall was nearly normal, and in June considerably in excess of the normal in all parts of the district; the deficiency of rainfall at the time of ploughing and sowing noticed against Conai is not borne out by rainfall records.
	Conai	483	715	63	69	66		144	12	Owing to the deficiency of rainfall at the time of ploughing and sowing the bhadoi crops have suffered to some extent, and if there be no rainfall or excess of rainfall, the estimate will not be realized.	
	Tunkoo	620	465	38	36	36		15	14	The short rainfall in July and August greatly damaged the crops.	
	Chittal	366	225	23	22	23		13	16		
	District Total	4,119	2,803	647	519	517		15	About 15		

District.	Sub-division.	Total area of sub-division in square miles.	Total area estimated to be under cultivation in square miles.	Approximate normal area under bhadoi crops.	Approximate area under bhadoi crops, under last year's estimate.	Estimated area under bhadoi crops, under this year's estimate.	Names of principal bhadoi crops.	9	10	11	12
								Taking 16 annas to represent the average output, how many annas will represent this year's output.	Taking 16 annas to represent the average output, how many annas will represent this year's output.	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.
MOONLY	Sudder ..	422	876.75	55.25	55.25	55.25	Aus paddy	Annas.	Annas.	The crop was affected by deficiency of rainfall. There was some loss in consequence of deficient rainfall after sowing. Owing to flood at sowing time the crop sustained a loss of 8 annas. Deficient rainfall retarded the cultivation. The plants are not thriving well.	
	Sorampore ..	243	520	30.25	30.25	30.25	Ditto	12	12		
	Johannabad ..	438	363	37	37	37	Ditto	13	13		
	Colcoberish ..	363	349	26	26	26	Aus and kailas paddy	19	14		
	Horrish ..	171	100	18	16	17.50	Aus paddy	14	16		
	District Total	1,697	1,697.25	212.50	210.50	208		13	About 12		
SALPESCHURAH	Sudder ..	1,678	717	65	65	65	Aus paddy	13	14	There does not appear any noticeable difference in the output, but the floods which have lately visited the northern part of the Barahat subdivision have injured the crops to some extent, full particulars of which will be given in the final forecast. As the rains set in early, more attention was paid to the cultivation of winter rice than bhadoi crops, and hence there has been a deficiency in the area of the cultivation of the latter.	
	Barahat ..	313	433	11	11	11	Ditto	14	15		
	Barahat ..	323	413	40	40	40	Ditto	14	15		
	Sorampore ..	500	430	45	70	45	Ditto	10	10		
	Dum-Bur ..	66	33	2	2	2	Ditto	12	13		
	District Total	2,880	1,600	153	205	156		14	15		
KHOOLIA	Sudder ..	1,678.40	309	31	31	31	Aus boro, and kumoni rice.	11	8	Three-fourths of the crop have been destroyed by floods. Half of the crop has been destroyed by floods. Ditto.	
	Barahat ..	1,272.83	449	40	40	40		11	8		
	Barahat ..	1,505.68	520	70	70	70		11	8		
	District Total	4,456.91	1,259	151	181	181		10	7		
NUNDRA	Sudder ..	701	454	351	351	351	Aus paddy	8	4	Indigo suffered for want of rain in the beginning, and it was injured by too much rain during manufacturing. The winter spring was largely injured by excessive rain in November last. Ploughing and sowing were delayed to a certain extent in the beginning owing to drought, but the weather was very favourable afterwards, and the aus paddy grew into a fine crop. Before the harvest time it was greatly damaged by the heavy floods.	
	Kushla ..	386	444	330	300	275	Jute	4	5		
	Mohampore ..	637	600	440	440	440	Aus paddy	8	14		
	Chandargah ..	437	273	200	200	200	Jute	10	14		
	Ranaghat ..	427	355	155	155	155	Gama (?) Aus paddy	6	1		
	District Total	2,780	1,933	1,456	1,383	1,343		13	13		
BONGRA	Sudder ..	639	475	210	210	210	Aus paddy	12	12	Timely rainfall during the ploughing and sowing season gave satisfactory results. The output of the year would have been 18 annas but for floods which, coming before the crop was fit for harvesting, submerged the crop and destroyed more than 10 annas of it.	
	Bongra ..	640	839	19	194	194	Aus paddy	16	6		



[illegible]

In the latter half of June and in July the rainfall appears to have been excessive and continuous. The bread crops probably suffered to a certain extent from this cause.

Some damage was done by the excessive rainfall of July, but on the whole a full average crop is expected.

Plentiful rain fell during the spring enabling the ryots to get on well with their ploughing. There has been a slight loss of jute and a rather greater loss of sun through floods in the south and east of the district.

\* This includes Sonderburg, 2,775.91 square miles pertaining to this district.  
 † During the current year Chief Merchader having an area of about 30 square miles was transferred from Reichshof district to Eschwege subdivision; hence the increase.

\* This includes Sunderbans, 2,772-21 square miles pertaining to this district.

This includes Sundernagar, 2,773.91 square miles appertaining to this district. During the current year Chitr Mohandasjee having an area of about 30 square miles was transferred from Rajnalshe district to Kanbes sub-division; hence the increase.

1	2	3	4	5	6	7	8	9	10	11	12	
District.	Sub-division.	Total area of sub-division in square miles.	Total area estimated to be under cultivation in square miles.	Approximate area under normal crops.	Approximate area under this year's crops.	Estimated area under this year's bhadoi crops.	Name of principal bhadoi crops.	Taking 10 annas to represent the average of last year's outturn.	Taking 10 annas to represent the average of this year's outturn.	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.	
PURNA	Purna	1,847	1,433	136	668	406	Aus Jute	Anna 7 15	Anna 11 16	Rainfall was favourable both at the ploughing and sowing times, but high floods damaged the crops at harvesting time, especially in the Sudder sub-division.		
	Sodra, including Kalimpong.	736	55	47	45	41	Maize paddy Warun Koon Pedar(?) Paddy Jute Paddy Warun Malwa	13 12 15	12 10	Owing to the very heavy and incessant rains after sowing it is feared that the yield will not be a good one. Excessive rainfall from the very beginning of the season was a great obstacle to the full growth and development of the plants; consequently the outturn is much less than the average.	Maize, warun and potatoes are known to be grown in the hills within the jurisdiction of Kurseong. The area under these crops is evidently left out in estimating the total area under cultivation.	
	Kurseong	125	Very little	about 8 acres or '01 square mile only								
	Siligurree	353	150	55	190	104			More than 13	About 13		
DARJILING	District Total	1,104	279	133	145	127						
	Syabulpore	627	306	133	138	133	Early paddy— Shont Jomira Jute Betri paddy Jute Betri paddy Jute Aus paddy Jute Early paddy— Kalamandra Dipendaura Karatbasi Jute Early paddy— Nipal Malwa Sengol Jute Early paddy— Malwa Jute	13 12 7 10 10 10 10 12 11 11 11 8 8 16 13 13 12	14 8 14 11 14 11 14 13 13 13 13 10 10 13 13 14	Owing to good fall of rain the outturn of bhadoi rice will be better than that of last year; but excessive rainfall has affected the jute crop to some extent.	The figures in column 3 against Alipore and Pakakota will not tally with the figures of last year, vide correction slip to census pamphlet. The Sub-divisional Officer of Alipore says that he cannot reconcile the figures of column 8 with the area under bhadoi crops shown in the last year's return. The figures of column 8 as now shown are said to be correct.	
	Bodo	403 73	206	85	85	80						
	Patgram	54 86	75	18	15	20						
	Mynaguri	534	313	63	54	70						
	Alipore	699	309	30	23	30						
	Palinkota	400	170	30	20	30						
	Bhalka	138	54	3	3	3						
	District Total	2,757 80	1,201	337 5	340 3	376 3						
	Sudder		1,356	633	311	311	311	Early paddy, viz.— Gora Moorchakani Shel Kalamank Poranghi Sharia Kalthore Pankab Jute Grass Sagarwano Early paddy, viz.— Kalamank Poranghi Sharia Kalthore Pankab Jute	15 14 16 11	11	The unusual rise of the river has affected every crop, especially the sugarcane.	The prospects of aus paddy this year were not so good as last year, but the extraordinary high flood of the river has damaged the crop a good deal.
Medanigunge		620	228	48	48	48						

District	Taluk	Cultivated Area in Acres	Area under Rice in Acres	Area under Other Crops in Acres	Total Cultivated Area in Acres	Crops	Remarks	Remarks
FURNISSING	Mandagum	421	300	109	80	100	...	...
	Narasingum	941	950	80	30	200	...	...
	District total	2,777	1,549	437	417	437	...	...
	Sudder	880	623	66	24	64	...	...
BACHAGUM	Perampore	279	623	66	24	64	...	...
	Madurum	428	311	142	142	142	...	...
	District total	2,807	1,575	328	280	328	...	...
	Sudder	1,111	698	129	129	129	...	...
KIRKURUM	Perampore	623	400	30	30	30	...	...
	Perampore	1,231	800	400	400	400	...	...
	District total	2,849	1,498	335	335	335	...	...
	Sudder	1,449	1,070	370	370	370	...	...
KIRKURUM	Tangail	1,041	787.75	256	256	256	...	...
	District total	2,849	1,498	335	335	335	...	...
	Sudder	1,449	1,070	370	370	370	...	...
	District total	2,849	1,498	335	335	335	...	...
KIRKURUM	Perampore	1,231	800	400	400	400	...	...
	District total	2,849	1,498	335	335	335	...	...
	Sudder	1,449	1,070	370	370	370	...	...
	District total	2,849	1,498	335	335	335	...	...

The total area estimated to be under cultivation (271 square miles) excludes the area under tea. These are the figures now given by the Sub-divisional Officers. They seem to be incorrect, and special reports have been called for, but until the reports are received the figures cannot be altered with any certainty. Probably the figures given last year are much nearer the mark.



1	2	3	4	5	6	7	8	9	10	11	12
DISTRICT.	Sub-division.	Total area of sub-div. in square miles.	Total area estimated to be under cultivation in square miles.	Approximate area under normal crop.	Approximate area under last year's bhadoi crop.	Estimated area under this year's bhadoi crops.	Names of principal bhadoi crops.	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn.	Taking 10 annas to represent the average outturn, how many annas will represent this year's outturn.	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.
TIPPERAH	Sudder ..	1,148	546.5	171.3	171.3	171.3	Early paddy— Kamin shail Kali do. Phuli do. Kachhulani Bailam Muri Early paddy— Jeto jall Anari do. Bata do. Aus paddy	14	19	Owing to excessive rain and inundation the crops were partially damaged in some places at the harvesting time.	
	Bismambaria...	769	835.63	133.42	133.42	239.43		15	12	Frequent rains during the time of sowing and weeding reduced the yield.	
	Chandpore ..	638	415	80	84	60		16	14	Unusual rise of water reduced the yield.	
	District Total	2,491	1,855.15	389.72	389.72	350.73		About 12			
MOORENALLY	Sudder ..	1,208	700	233	214	233	Early paddy— Shokh (Green) Bailam Sultanbhugg Shatia Kalinoooga Harall	15	19	Excessive rain in March while sowing was going on, and in July and August while the crops were being cut and harvested, affected the outturn.	
	Fenny ..	348	237	85	84	84	Early paddy— Chegual Sholoi Shatia Bailam Bhadori	12	13	The crop has been damaged by excess rain, flood and insects, to the extent of a third.	
CHITTAGONG	District Total	1,641	1,035	328	329	323		124	11		
	Sudder ..	1,650	611.23	163.8	162.8	111	Early paddy— Bailam Chital Chital Shatia Early paddy Early paddy Khatia	19	13	Heavy rainfall in June and July affected the crop injuriously. My estimate of last year's outturn in my general administration report I have since ascertained was too low. Last year the bhadoi crops were grown and harvested under very favourable circumstances. The crop this year is expected to come up to the average outturn of 16 annas.	
	Cox's Bazar ..	387	634.78	30.15	30.16	30.15		16	16		The cause for the decrease in the area sown this year as compared with the normal area under bhadoi crops is not shown. To judge from the rainfall records there was an excess of rain in the Chittagong district in June; the recorded fall in this month was short of the normal at every station, except Cox's Bazar, where the excess amounted to only 1 inch. At Chittagong, the deficiency was nearly 6 inches, and the number of rainy days fewer in the month. In July the fall was excessive, being 49.23 against 25.03 inches.
	District Total	2,037	1,246.01	193.95	192.96	141.15		18	16		





1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of sub-division in square miles.	Total area estimated to be under cultivation in square miles.	Approximate area under normal crops.	Approximate area under last year's crops.	Estimated area under this year's bhadoi crops.	Names of principal bhadoi crops.	Taking 16 annas to represent the average output, how many annas will represent this year's output.	Taking 16 annas to represent the average output, how many annas will represent this year's output.	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.
BANGALORE	Bair	608	563	53	58	5	Serbia paddy Sathi paddy Marna Sarna Bajra Tangun millet Jandera Kodo Urid Til	12	12	The excessive rainfall has made the prospect of the bhadoi crop hopeless. The fields being under water, both seed and plants have rotted.	
	Bhuba	1,301	576	125	120	115	Serbia paddy Sathi paddy Marna Sarna Bajra Tangun millet Jandera Kodo Urid Til	15	15	The crops were affected by excessive rainfall at the time of sowing as well as afterwards.	
	Budman	1,468	500	87	75	68	Serbia paddy Sathi paddy Marna Sarna Bajra Tangun millet Jandera Kodo Urid Til	14	14	The deficiency in the culture is due to excess of rain water at the time of sowing, and subsequently the crops suffered a good deal from floods in low lands and excessive and constant rain.	
	District Total	4,006	3,167	421	353	309		15	21		
	Bodder	1,312	729	298	250	206	Marna Marna Gumri paddy Shama Kach Marna Sarna Marna Sarna Marna Gumri paddy Kodo Sarna Kach	16	12		
DUMKURA	Talpoore	704	611	236	400	316	Marna Marna Gumri paddy Kodo Sarna Kach	16	16	The bhadoi crops were sown under most favourable circumstances, but excessive rainfall and floods afterwards affected the culture.	In the latter half of June, in July and August, the rainfall was very excessive in all parts of the district. In Talpoore only the fall in August was nearly normal; in Annas in the sub-division appears to be an overestimate, and is inconsistent with the Collector's remarks.
	Madhabani	1,340	1,025	459	320	400	Marna Marna Gumri paddy Kodo Sarna Kach	14 to 15	10		
	District Total	3,356	2,665	1,078	1,020	1,020		About 17	About 13		
MOONSHIPORE		1,514	927	385	345	303	Marna Marna Urid Kodo Kach Sarna Chenai Jandera (lower)	6	6		
	District Total	1,514	927	385	345	303		6	6		

[illegible]

This area is twice cropped, being sown with *khaddi* and *mohi* in succession.

[illegible]





1	2	3	4	5	6	7	8	9	10	11	12
District.	Sub-division.	Total area of cultivation in square miles.	Total area cultivated by the cultivators in square miles.	Approximate normal rice under irrigation.	Approximate area under last year's crops.	Estimated area under this year's crops.	Names of principal crops.	Taking 10 years to present the average, how many years represented last year's output.	Taking 10 years to present the average, how many years represented last year's output.	Remarks by the District Officer.	Remarks by the Agricultural Department, Bengal.
Dacca	Sudder	7,764	1,658	516	274	224	Maize Sorghum Rice Wheat Millet Sesame Kharif Jowar Bajra	13	14	No damage was done to the crops by excessive rain.	In the Sudder sub-division the excess was nominal.
	Palamow	4,946	2,061	400	426	400	Maize Sorghum Rice Wheat Millet Sesame Kharif Jowar Bajra	15	14	Killed of rain just after sowing time destroyed at the seedling to a certain extent.	
	District Total	12,710	3,719	916	700	624		More than 14	14		
Mymensingh	Sudder	8,344	1,800	130	190	180	Maize Sorghum Rice Wheat Millet Sesame Kharif Jowar Bajra	16	16	Excess of rainfall between sowing and harvesting time has injured the crops.	These being sufficient rain, the yield has been a bumper crop. (Owing to the deficiency of rainfall at sowing time, the crops were not sown over as large an area as usual.)
	Gaboolpur	805	370	60	25	40	Maize Sorghum Rice Wheat Millet Sesame Kharif Jowar Bajra	16	16		
	District Total	9,149	2,170	190	215	220		About 16	About 16		
Sylhet	Kolhan	1,346	973	400	440	400	Maize Sorghum Rice Wheat Millet Sesame Kharif Jowar Bajra	16	16		
	Poorhat	460	207	21	81	50	Maize Sorghum Rice Wheat Millet Sesame Kharif Jowar Bajra	16	16		
	Dhahaboon	1,147	573	143	143	130	Maize Sorghum Rice Wheat Millet Sesame Kharif Jowar Bajra	16	16		
	District Total	2,953	1,753	564	664	570		17	17		
Total for all Bengal		153,640.51	68,274.89	94,950.14	22,065.43	22,801.29		16	16		

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 1st November, 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL.</b>			
<i>Western Districts.</i>			
1	Burdwan Nov. 1, '90 Ranigunge	Nil 0.01	Weather—cloudy and hot. Prospects of <i>amun</i> and sugarcane good. Price of common rice:— <div style="float: right; text-align: right;"> <i>Srs.</i>  Burdwan ... 10½  Culna ... 15  Cutwa ... 16  Ranigunge ... 17  } per rupee. </div>
2	Bankura .. 1, '90	Nil	Weather—fine, but occasionally cloudy. Prospects of <i>amun</i> crop continue good. Early rice has been an average crop. <i>Amun</i> expected to yield 16 annas in Sudder and 14 annas in the Bisenpore subdivision. Sugarcane thriving. Common rice selling at 19 seers per rupee at Sudder and 20 seers at Bisenpore.
3	Birbhum .. 1, '90	0.24	Weather—seasonable. Crops remarkably excellent. Price of rice 16 to 19 seers per rupee.
4	Midnapur .. 1, '90	0.38	Weather—cloudy, wind variable. Prospects of rice crop good everywhere. Some of the low-lying lands in Contai submerged. Jute in Tumlook is an average crop. Price of common rice:— <div style="float: right; text-align: right;"> <i>Srs.</i>  Sudder ... 15  Ghatal ... 16  Tumlook ... 16  Contai ... 18  } per rupee </div>
5	Hooghly .. 1, '90	Nil	Weather—seasonable. Paddy plants healthy, and prospects good. Price of common rice:— <div style="float: right; text-align: right;"> <i>Srs.</i>  Sudder ... 14  Serampore ... 14  Jehanabad ... 16  } per rupee. </div>
	Howrah .. 1, '90	Nil	Weather—seasonable. <i>Amun</i> and other crops doing well. Price of common rice 14 seers per rupee.
<i>Central Districts.</i>			
6	24-Pergha Nov. 1, '90	Nil	Weather—seasonable. Prospects of <i>amun</i> paddy continue good, and the yield is estimated at about 18 annas. Yield of jute estimated at 16 annas. Lands being prepared for <i>rabbi</i> crops. Common rice sells at from 19 to 15 seers a rupee.
7	Nuddea .. 1, '90 Mehurpore	Nil 0.06	Weather—seasonable. Prospects of crops fair. Sowing of winter crops going on. Price of rice stationary.
8	Khosina .. 1, '90	Nil	Weather—seasonable. Prospects of the <i>amun</i> crop satisfactory in Sudder and Barishat and in southern portion of Satkhira. In the north of Satkhira the <i>amun</i> was destroyed by the late flood. It was also slightly injured everywhere by the high wind of the 22nd October.
9	Jessore .. 1, '90 Mugura Narail	Nil 0.03 0.06	Weather—seasonable. <i>Rabbi</i> sowings in progress. Price of rice stationary.
10	Mooredabad .. 1, '90	0.04	Weather—seasonable. <i>Amun</i> paddy in ear. <i>Rabbi</i> crops being sown. Prospects favourable.
11	Dinagepur .. 1, '90	Nil	Weather—seasonable. Prospects continue to be very good, and, unless some unforeseen calamity occurs, the winter rice should be unusually good. Price of rice remains stationary.
12	Bajshahye .. 1, '90	Figures not given.	Fair weather. A shower last night (31st October). Steeping of jute almost finished. Tobacco transplantation going on. Prospects of paddy and winter crops good. Gauja plants being transplanted.
13	Natore .. 1, '90 Rangpur	Nil 0.08	Weather—set fine, with cool nights and heavy morning dews. Prospects of crops generally good. Great damage done by excessive rain to tobacco seedlings, and the potato crop will not be a good one owing to late planting from the same cause.
14	Bogra .. 1, '90 Sherpur	0.11 0.11	Weather—fine till 31st October; morning of 1st November cloudy and showery, afternoon fine again. All standing crops promise well, after allowing for partial injury caused by floods to the <i>amun</i> rice crop. Common rice selling at 17 seers a rupee.
15	Pabna .. 1, '90	Nil	Weather—cool and bright. Prospects of crops continue good. Prices appear to be stationary.
16	Darjeeling .. 1, '90	Nil	Weather—fair. Potatoes and mustard are being sown in the Terai. <i>Haimanti</i> paddy, <i>marua</i> , and <i>pafar</i> in the hills progressing favourably. Prospects good.
17	Jalpigore .. 1, '90	Nil	Cold season has almost set in. Prospects of <i>haimanti</i> paddy good. Harvesting of jute going on. Prices stationary.



No.	District and date of report.	Rainfall at nearest station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—continued.</b>			
<b>Eastern Districts.</b>			
Dacca Div.	18 Dacca Nov. 1, '90	0.04	Weather—seasonable. Heavy rain in Manickganj. <i>Amra</i> paddy being harvested. <i>Amra</i> paddy thriving. Cultivation going on for mustard and pulses. Fodder is available. Common rice sold at from 12 to 15 seers per rupee.
	19 Furraddpur „ 1, '90	Nil	Weather—seasonable. State and prospects of all standing crops good. Reaping of early <i>amra</i> has commenced. Winter crops are being sown. Price of rice stationary.
	20 Backergunge „ 1, '90	Nil	Weather—seasonable. Prospects and condition of crops good. Common rice selling at about 13 seers per rupee.
	21 Mymensingh „ 1, '90	0.40	Weather—cool and generally fine; cloudy since yesterday (31st October), and light showers falling to-day (1st November). <i>Amra</i> paddy thriving. <i>Kalai</i> somewhat damaged by heavy rain last week. Common rice sold at 13 seers per rupee.
Chittagong Div.	22 Chittagong „ 4, '90	1.32	Weather—unsettled. <i>Amra</i> crop in ear. Prospects favourable. Prices steady.
	23 Noakhally „ 1, '90	Nil	Weather—not seasonable; cloudy and sultry. <i>Amra</i> maturing. Preparation of lands for <i>rabbi</i> crops going on. Price of rice stationary.
	24 Tipperah „ 1, '90	1.02	Weather—clear. Cold weather setting in. Prospects of <i>amra</i> excellent. Lands being tilled for winter crops. Prices stationary.
	25 Chittagong Hill Tracts Oct. 30, '90	0.55	Weather—disturbed up to 27th; since then more settled. Harvesting of <i>jum</i> paddy nearly complete. Cotton forming pods here and there. Plough-paddy flowering. Common rice being sold at 11 seers 6½ chittacks per rupee.
	Hill Tipperah ...	...	Report not received.
<b>BEHAR.</b>			
Patna Div.	26 Patna Nov. 1, '90	Nil	Weather—hot in the day and cool at night. Sowing of <i>rabbi</i> crops going on. Paddy promising well. <i>Rahar</i> and cotton look flourishing. Poppy fields are being prepared. Prices of food-grains almost stationary.
	27 Gaya „ 1, '90	Nil	Weather—clear days and cold nights. Prospects of crops good. Sowing of <i>rabbi</i> crops going on throughout the district. Prices of food-grains falling. A flight of locusts reported from the Aurangabad subdivision, but the extent of damage to the crops not reported.
	28 Shahabad „ 1, '90	Nil	Weather—cooler. Prospects of <i>rabbi</i> and paddy crops good. <i>Rabbi</i> crops are still being sown. Early paddy being harvested. Opium prospects at present excellent, the weather being favourable for sowings.
	29 Darbhanga „ 1, '90	Nil	Weather—bright and getting cool. Rice crop looking well and coming into ear. <i>Rabbi</i> sowings in progress, and those already sown have germinated well. Tobacco doing well. Prices stationary.
	30 Mozuffarpur „ 1, '90	Nil	Weather—dry and fairly cool. Sowing of <i>rabbi</i> crops proceeding. Rice crop in excellent condition. Prices moderate.
	31 Saran „ 1, '90	Nil	Weather—fine and cold. <i>Rabbi</i> and rice prospects both excellent. Prices slightly falling.
BAGHPORE Div.	32 Champaran „ 1, '90	Nil	Weather—pleasantly cool; sky clear. <i>Rabbi</i> sowings have commenced. Paddy in ear and doing very well. Prices stationary.
	33 Monghyr „ 1, '90	Nil	Weather—seasonable. <i>Rabbi</i> crops are being sown. Winter rice promising.
	34 Bhagalpore „ 1, '90	Nil	Weather—clear. Mornings and evenings cool, nights dewy. Winter rice promising. Other crops doing well. Lands being prepared for spring crops. Indigo sowings in progress.
	35 Purneah Kishengunge „ 1, '90	Nil 0.06	Weather—cool and fine with north-west wind. Prospects favourable, but the rain in October has retarded <i>rabbi</i> sowings, specially sowings of rape seed.
	36 Malda „ 1, '90	Nil	Weather—seasonable. Condition and prospect of <i>amra</i> crop excellent. In some parts it is in ear. <i>Kalai</i> thriving well. <i>Rabbi</i> crops being sown. State of mulberry plants good. Common rice selling at from 12 to 13 seers a rupee.
	37 Southal Perga. ...	...	Report not received.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
<b>ORISSA.</b>			
ORISSA DIV.	38 Cuttack Nov. 1, '90	0.10	Weather—dry and cool. General prospects of paddy crop good, except in some parts of the Kujang estate where a failure of crops has occurred. Sowing of <i>rubb</i> crops nearly finished. Mustard sown to the extent of 10 annas. Outturn of <i>basli</i> rice in Sudder 12 annas, Jajpur 6½ annas, and Kandrapara 12 annas.
	39 Poonam Oct. 30, '90	0.55	Weather—seasonable. Late <i>sarad</i> (winter rice) is in ear. <i>Laghu sarad</i> (early winter rice) ripening. Miscellaneous crops doing well. Price of common rice stationary.
	40 Balasore Nov. 1, '90	0.49	Weather—fine up to 30th October; since then stormy. Prospects of winter rice fairly good except in thana Ballapat.
<b>CHOTA NAGPORE.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPORE DIV.	41 Hazaribagh Nov. 1, '90	Nil	Weather—seasonable; cloudy since last two days. State of crops favourable throughout the district.
	42 Lohardugga „ 1, '90	Nil	Weather—cloudy. Harvesting of <i>gora</i> rice finished. Prospect of winter rice continues favourable. Prices steady.
	43 Singhbhum „ 1, '90	Nil	Weather—very cloudy and threatening rain. Winter rice being reaped in places; 16 annas outturn expected in Ghatsila and Monarpar thanas, and 10 to 12 annas outturn in the rest of the district. <i>Kabbi</i> sowings being continued. Prices stationary.
	44 Manbhum „ 1, '90	Nil	Weather—seasonable. All crops doing well.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 4th November, 1890.P. NOLAN,  
Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.														
			District.	Representative station.	AIR PRESSURE.			WIND.	TEMPERATURE.						Mean of six days.		
					Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.		Highest during week.	Date.	Lowest during week.	Rate.	Mean maximum temperature.	Mean minimum temperature of week.		Mean daily temperature of week.	Variation from normal mean of week.
Orissa.	Pooree	Pooree	29.975 29.985	29.947 29.956	+0.028	NNW	102 110	87.7 89.2	28th 28th	Oct.	78.0 72.3	28th 28th	87.1 87.1	75.8 73.8	81.2 80.5	-	77.5 77.5
	Pooree	False Point	29.983	29.985	+0.002	N & NNW	147	87.4	16th		79.5	27th	85.6	78.1	79.8	+0.8	77.5
	Cuttack	Cuttack	29.923	29.909	+0.014	Calm & NW	30	90.4	25th		71.3	28th	83.6	78.6	81.2	+1.2	77.5
	Balasore	Balasore	29.902	29.883	+0.019	NW	158	88.4	26 & 27		83.0	26th	80.1	71.4	78.6	+1.7	76.5
North-West Bengal.	South-West Midnapore	Saugor Island	29.975	29.902	+0.073	North-Northerly	161	87.1	26th		70.0	27th	85.1	71.7	78.5	-0.3	77.5
	Midnapore	Midnapore	29.849	29.803	+0.046	N	178	88.5	25th		72.2	27th	87.9	69.2	78.0	+1.1	77.5
	14-Pargunnah	Calcutta	29.987	29.909	+0.078	Calm	24	85.3	25th		86.7	27th	85.7	80.6	78.0	-1.7	77.5
	Howrah	Howrah	29.918	29.921	+0.003	Calm	38	87.6	26th		87.4	26th	86.4	69.8	78.1	-0.8	74.5
North-East Bengal.	Burdwan	Burdwan	29.983	29.909	+0.074	W	42	88.1	26th		84.2	27th	86.5	67.4	77.0	-1.3	77.5
	Ranaghat	Ranaghat	29.956	29.934	+0.022	NW	35	87.0	25th		81.1	27th	85.1	65.9	73.5	-2.3	77.5
	Mooreabad	Kharagpur	29.937	29.905	+0.032	South-West	37	84.7	26th		84.7	26th	84.7	63.4	74.0	-1.7	76.0
	Mudra	Krishnanagar	29.957	29.907	+0.050	WNW	40	88.8	31st		83.9	27th	85.7	65.8	75.8	-2.6	76.7
North-West Bengal.	Jessore	Jessore	29.987	29.902	+0.085	Calm	35	88.8	25th		89.0	27th	85.0	70.7	78.1	+1.1	77.5
	Chittagong	Chittagong	29.914	29.840	+0.074	Variable	40	86.8	25 & 26		83.7	26 & 27	85.1	78.0	78.0	+0.1	77.5
	Chittagong Hill Tracts	Dumagiri	29.973	29.983	+0.010	Calm	41	89.8	25th Oct.		89.4	27th	84.0	70.8	77.8	+0.3	77.5
	Naakhelly	Naakhelly	29.970	29.910	+0.060	N	78	84.5	25-27		87.4	26 & 27	85.9	70.7	77.8	-0.1	77.5
North-East Bengal.	Farrakka	Farrakka	29.917	29.907	+0.010	Calm	35	84.5	26th		87.4	26th	89.1	69.1	70.1	-1.0	77.5
	Dacca	Dacca	29.945	29.902	+0.043	SE	64	85.1	26 & 27		87.2	26th	84.0	70.1	77.1	-2.4	77.5
	Comilla	Comilla	29.963	29.909	+0.054	NE	23	83.9	27th		83.8	26th	83.8	65.9	78.6	-2.2	77.5
	Mymensingh	Mymensingh	29.945	29.904	+0.041	North-Northerly	38	84.7	26 & 27		87.1	26 & 27	85.0	69.2	78.3	-0.9	77.5
North-East Bengal.	Bogra	Bogra	29.920	29.950	+0.030	North-Northerly	83	85.0	26th		84.1	26th	83.8	67.0	75.3	-2.1	77.5
	Pabna	Pabna	29.900	29.904	+0.004	NW	20	85.2	26 & 31		84.5	26th	83.9	67.1	78.8	-1.9	77.5
	Rajshahi	Rajshahi	29.950	29.907	+0.043	Calm	34	85.5	26th		84.7	27-28	83.9	65.6	74.4	+0.1	77.5
	Waldab	Waldab	29.928	29.912	+0.016	W	61	85.0	25 & 26		83.3	26th	83.3	65.8	75.8	-2.7	77.5
North-East Bengal.	Dinapore	Dinapore	29.983	29.907	+0.076	W	36	87.1	26th		84.2	26th	85.5	67.1	76.8	0	77.5
	Rangpur	Rangpur	29.980	29.915	+0.065	WNW	53	87.4	26th		84.2	31st	85.2	67.4	76.4	+1.0	77.5
	Jaipur	Jaipur	29.972	29.908	+0.064	P	194	88.3	26th		85.1	26th	84.8	66.7	76.7	+0.1	77.5
	Debari	Debari	29.945	29.903	+0.042	SW	102	81.6	31st		83.2	31st	80.2	47.0	63.1	-0.5	77.5
North-East Bengal.	Purnea	Purnea	29.974	29.900	+0.074	SW	39	84.2	26th		80.0	31st	84.1	64.2	74.3	-2.0	77.5
	North Bhatgaon	North Bhatgaon	29.931	29.904	+0.027	Calm	54	85.3	26th		85.2	27 & 28	84.2	68.8	78.7	-	77.5
	Durgha	Durgha	29.943	29.901	+0.042	WSW	40	84.4	26th		82.0	31st	83.1	63.6	75.3	-1.8	77.5
	Churapara	Churapara	29.978	29.915	+0.063	ESE	69	85.2	26 & 27		85.9	31st	85.2	62.2	73.7	-1.6	77.5
North-East Bengal.	Baran	Baran	29.979	29.909	+0.070	W	47	85.0	26th		82.1	31st	84.9	60.2	73.5	-0.4	77.5
	Shahabad	Shahabad	29.937	29.904	+0.033	SW	63	85.8	26th		80.6	30th	83.0	60.7	72.8	-2.7	77.5
	Baran	Baran	29.970	29.921	+0.049	W & SW	66	85.4	26 & 27		80.4	31st	84.8	63.1	75.8	-3.1	77.5
	Baran	Baran	29.900	29.902	+0.002	SW	15	87.4	26th		87.6	31st	85.5	61.8	73.6	-2.3	77.5
North-East Bengal.	Gya	Gya	29.940	29.904	+0.036	S	113	85.4	26th		81.7	27 & 31	85.0	63.2	74.6	-2.0	77.5
	Patna	Patna	29.959	29.903	+0.056	W	55	86.0	26th		82.8	31st	85.0	64.2	75.1	-1.7	77.5
	South Bhatgaon	South Bhatgaon	29.922	29.909	+0.013	Calm	8	87.2	26th		87.0	27th	84.5	61.8	74.7	-0.9	77.5
	South Bhatgaon	South Bhatgaon	29.946	29.912	+0.034	Calm	38	85.5	26th		80.3	27th	84.3	64.2	74.2	-1.3	77.5
North-East Bengal.	Hazratganj	Hazratganj	29.977	29.931	+0.046	WNW	108	81.4	26th		83.8	27th	80.2	61.1	70.7	-1.6	77.5
	Baran	Baran	29.946	29.913	+0.033	Calm	35	81.5	26th		83.9	26th	80.7	63.7	73.7	-1.0	77.5
	Baran	Baran	29.927	29.912	+0.015	ENE	23	87.4	26th		80.3	27th	80.4	63.6	75.7	-0.1	77.5
	Baran	Baran	29.970	29.907	+0.063	Variable	7	85.0	26 & 27		83.8	31st	85.2	63.8	75.1	+1.3	77.5
North-East Bengal.	Baran	Baran	29.984	29.907	+0.077	Variable	64	85.8	26 & 27		85.9	26th	83.3	60.8	76.6	-0.4	77.5
	Baran	Baran	29.903	29.912	+0.009	Calm	7	86.5	26th		86.8	31st	86.4	70.3	78.6	+0.3	77.5

\* Mean of six days.

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period for the years 1871-1880. The amount of the atmosphere, expressed as percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The number in the district standing in return divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.



the week ending Friday, the 31st of October 1890.

DISTRICT OBSERVATIONS.															Representative station.	Observer.	METEOROLOGICAL DIVISION.
No. of station.	Average cloud amount at 5 A.M. for week.	Rainfall of week at observing station.	OF WEEK.		RAINFALL.						Average number of rainy days.	Normal number of rainy days.					
			Mean for district.	Normal mean.	Since 1st of month.			Since 15th May 1890.									
					Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.							
1	5.0	0.81	1.68		8.18			52.93		1.3	Pooree	Pooree	Orissa.				
2	5.0	0.07									Gopalpore						
3	4.7	0.93									False Point						
4	4.2	0.13	1.18		0.68			40.80		1.4	Cuttack	Cuttack					
5	1.9	0.44	1.16	0.91	0.28	+4.08	60.30	51.74	+8.56	1.3	Balasore	Balasore					
6	3.0	1.42	2.08	1.84	18.27	+10.65	45.45	51.00	+4.65	1.0	Seager Island	South-West Midnapore					
7	1.0	0.48	0.13	0.77	4.73	+0.46	30.40	54.61		0.3	Midnapore	Midnapore					
8	1.7	NH	NH	0.76	8.29	+4.06	55.09	50.36	+4.73	0.0	Calcutta	24-Pargunnahs					
9	1.9	NH	0.27	0.78	4.09	+1.08	81.14	45.88	+15.26	0.3	Burdwan	Howrah					
10	1.4	NH	NH	0.53	8.34	+1.83	63.01	51.47	+11.54	0.0	Bankura	Bankura					
11	1.3	0.01	0.14	0.47	8.08	+4.06	68.58	51.48	+17.10	0.8	Renukang	West Burdwan					
12	1.0	0.89	0.27	0.28	7.44	+3.28	0.43	40.64	+10.20	0.3	Bathamputra	Moorsabad					
13	1.3	NH	NH	0.69	8.74	+4.63	34.40	45.39	+10.99	0.0	Krishnanagar	Nudda					
14	1.0	NH	NH	0.81	7.68	+3.43	53.47	58.22	+4.75	0.0	Jessore	Jessore					
15	3.0	0.42	0.28	1.00	3.23	-2.76	117.39	110.40	+7.99	1.0	Chittagong	Chittagong					
16			1.14	4.30	7.16	-2.86	71.00	77.77	-6.77	1.0	Demagiri	Chittagong Hill Tracts					
17	1.0	NH	NH	1.04	7.14	+0.50	89.13	74.36	+14.77	0.0	Bargul	Backergunge					
18	0.2	0.05	1.33	0.40	8.80	+0.37	91.98	103.16	-11.18	1.3	Noakhali	Noakhali					
19	0.3	NH	NH	0.03	7.43	+4.44	45.43	54.34	-8.91	0.0	Farrakpa	Farrakpa					
20	1.7	0.04	0.03	0.84	5.18	+4.45	58.19	59.07	-0.88	0.6	Dacca	Dacca					
21	2.9	1.58	0.77		5.11			60.21			Coximilla	Tippur					
22	2.4	0.80	0.06	0.74	5.03	+4.02	74.08	68.10	+5.98	0.3	Nymensingh	Nymensingh					
23	0.0	NH	NH	0.82	11.38	+4.40	78.38	80.30	+1.92	0.0	Bogra	Bogra					
24	1.8	0.01	NH	0.65	5.82	+4.69	51.35	52.03	-0.68	4.0	Borajunga	Pabna					
25	1.0	0.08	0.06	0.61	10.32	+9.71	74.03	58.02	+16.01	0.7	Bangor	Bangor					
26	0.0	NH	NH	0.81	7.40	+3.99	62.13	63.40	-1.27	0.0	Maldah	Maldah					
27	0.0	NH	NH	0.31	11.44	+7.83	8.74	58.10	+23.36	0.0	Dinagpore	Dinagpore					
28	0.4	NH	NH	0.0	15.28	+13.30	106.01	73.09	+32.92	0.0	Rangpore	Rangpore					
29	1.0	NH	NH	0.74	14.98	+9.68	104.51	100.63	+3.88	0.0	Jalpaigore	Jalpaigore					
30	0.3	NH	0.25	1.23	16.08	+1.23	103.38	118.57	+15.19	0.4	Darjeeling	Darjeeling Hill Tracts					
31	0.8	NH	NH	0.63	6.23	+3.64	86.67	87.89	+11.22	0.4	Parmanu	Parmanu					
32	0.0	NH	NH	0.61	1.70	-1.61	52.57	42.47	+10.10	0.0	Moulvibazore	Moulvibazore					
33	0.0	NH	NH	0.81	1.74	-1.97	87.53	49.90	+37.63	0.4	Darbhanga	Darbhanga					
34	0.0	NH	NH	0.31	6.67	+3.13	68.47	45.80	+22.67	0.0	Chhapra	Chhapra					
35	0	NH	NH	0.40	1.48	-1.72	58.60	41.67	+16.93	0.0	Chhapra	Chhapra					
36	0	NH	NH	0.68	1.34	-1.96	49.39	59.00	-9.61	0.0	Dohra	Dohra					
37	0.0	NH	NH	0.63	0.43	-2.40	50.33	40.57	+9.76	0.0	Gaya	Gaya					
38	0	NH	NH	0.73	1.34	-1.91	49.19	49.41	-0.22	0.0	Bankipore	Bankipore					
39	0.0	NH	NH	0.77	5.17	+3.20	51.23	43.34	+7.89	0.0	Bhagalpore	South Bhagalpore					
40	0.7	0.11	0.62	0.64	10.31	+0.66	63.27	50.10	+13.17	0.3	Bhojpur	South Bhagalpore					
41	1.8	NH	NH	0.93				63.94			Haridwar	Haridwar					
42	1.4	NH	NH	0.45	1.33	-1.08	47.01	49.03	-2.02	0.0	Benauli	Benauli					
43		NH	NH	0.86	3.31	-0.63	41.43	40.04	+1.39	0.0	Benauli	Benauli					
44	2.3	NH	NH	0.71	1.73	-1.22	33.91	50.26	-16.35	0.0	Chyabassa	Singhbassa					
45	5.0	1.09									Nibagar						
46	1.9	NH									Dhubri						
47	7.0	NH									Silchar						

Notes. The variations are registered when the mean for the week is less than the corresponding normal mean, and positive when greater.  
 Average cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head District observations of rainfall the normal means are given. The means of the district are the numerical average of the rainfall returns received in the district, i.e., from total rainfall of the subdivisions.

## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 31st of October 1890.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 1st May 1890.	Average rain-fall from 1st May to date.
			Saturday, 25th October.	Sunday, 26th October.	Monday, 27th October.	Tuesday, 28th October.	Wednesday, 29th October.	Thursday, 30th October.	Friday, 31st October.	Number of rainy days.	of Rainfall week.				
NORTH.	Purba	Pooree	0'80					0'70	1'20	3	3'80	11'40	8'88	57'80	47'80
		Khardah							0'70	1	1'40	5'71	4'88	54'58	44'58
		Banpur	0'50				0'15						5'81		45'13
		Falsa Point							0'03	1	0'03	10'71	10'70	52'41	40'70
	Gulab	Saltora					0'10								
		Poppi													
		Bagbajpore					1'3	0'70					5'80		45'13
		Barki						0'05		1	0'10	5'54	4'40	50'70	40'70
	Balesore	Lutlack						0'13		2	0'12	7'51	5'37	52'54	41'54
		Kendrapur								2	0'09	5'33	5'08	52'08	41'08
		Tharua													
		Saltora													
CENTRAL.	Balesore	Chandbali							0'55	1	0'55	5'54	5'44	51'55	40'55
		Bhaddemol	1'58							2	2'05	11'14	4'71	57'17	46'17
		Barah							1'15	1	1'15	7'04	5'46	50'74	40'74
		Balesore							0'49	1	0'49	5'19	5'53	55'59	45'59
	Ganjam	Jajpur								NH	NH	10'56	4'54	54'54	44'54
		Kanipoda						1'57	0'77	2	2'44	9'48	5'01	52'51	42'51
		Conia							4'47	1	4'47	21'51	8'56	57'56	47'56
		Sagar Island							1'49	1	1'49	21'74	5'57	57'71	47'71
	Bhadrak	Tamluk								NH	NH	7'10	4'40	57'10	47'10
		Midnapore							0'58	1	0'58	5'10	4'80	47'51	37'51
SOUTH.	Bhadrak	Ghatol								NH	NH	1'04	3'00	44'01	33'01
		Kutubdia								NH	NH	10'55	5'00	50'55	40'55
		Gorbala								NH	NH	3'50		46'53	
		Diamond Har- bour							0'15	1	0'15	11'77	5'14	53'08	43'08
	Howrah	Canning Town								NH	NH	14'08		58'08	
		Alipore Jail								NH	NH	9'53	4'04	51'51	41'51
		Barrackpore								NH	NH	8'41	3'55	50'41	40'41
		Dum-Dum								NH	NH	12'04	4'53	56'73	46'73
	Hooghly	Barnett								NH	NH	11'17	4'54	54'54	44'54
		Rasorhat								NH	NH	1'49	4'30	53'49	43'49
WEST.	Hooghly	Howrah								NH	NH	7'01	4'34	51'74	41'74
		Moharaka								NH	NH	5'38	3'48	50'57	40'57
		(Chandbali)								NH	NH				
		Chandbali								NH	NH	8'41	4'19	54'37	44'37
	Burdwan	Hooghly								NH	NH	0'17	4'10	52'10	42'10
		Jehanabad								NH	NH	3'21	4'48	51'57	41'57
		Quila								NH	NH	5'07	3'05	54'11	44'11
		Burdwan								NH	NH	5'00	3'04	54'07	44'07
	Bankura	Quila							0'01	1	0'01	7'40	4'44	54'70	44'70
		Barwanga								NH	NH	3'55	3'42	50'44	40'44
		Manik								NH	NH	5'38		47'50	
		Bankura								NH	NH	4'70	4'13	57'71	47'71
SOUTH.	Bankura	Bishnupur								NH	NH	4'03	3'70	50'03	40'03
		Malara								NH	NH	0'42	3'28	49'42	39'42
		Khatra								NH	NH	3'02	3'73	40'02	30'02
		Jadua								NH	NH	0'74		50'74	
	Bardhaman	Kolai								NH	NH	8'04		53'04	
		Anda								NH	NH	9'20		55'20	
		Gangajalhati								NH	NH	3'57		53'57	
		Kaipore								NH	NH	6'13		53'13	
	Bardhaman	Manik								NH	NH	4'51		52'51	
		Bh. Scory							0'01	1	0'01	5'37	3'70	51'37	41'37
SOUTH.	Bardhaman	Bhatnagar							0'40	1	0'40	9'03	3'54	50'53	40'53
		Bhatnagar								NH	NH	5'08	3'50	72'08	62'08
		Bhatnagar								NH	NH	4'07		50'07	
		Murari								NH	NH	7'11		56'11	
	Nuddea	Bhatnagar								NH	NH	7'50	3'78	55'47	45'47
		Chandbali								NH	NH	7'07	4'21	51'07	41'07
		Chandbali								NH	NH	4'37	4'41	47'37	37'37
		Kuchitoo								NH	NH	13'25	3'22	54'25	44'25
	Khowda	Bhatnagar								NH	NH	7'04	4'70	57'13	47'13
		Bhatnagar								NH	NH	6'35	3'24	52'35	42'35
		Bhatnagar								NH	NH	7'50	4'19	52'50	42'50
		Bhatnagar								NH	NH	15'13		75'13	
SOUTH.	Jagore	Bhatnagar								NH	NH	11'44		65'44	
		Jagore								NH	NH	12'01	3'80	51'45	41'45
		Bhatnagar								NH	NH	4'42	4'42	50'42	40'42
		Bhatnagar								NH	NH	5'03	4'61	54'03	44'03
	Moorshedabad	Bongora								NH	NH	5'10	3'81	43'44	33'44
		Bongora								NH	NH	5'50	4'00	40'50	30'50
		Kandi								NH	NH	4'51	3'35	44'51	34'51
		Bhatnagar								NH	NH	7'01	4'43	50'01	40'01
	Moorshedabad	Lalbagh							0'42	1	0'42	7'50	4'51	51'57	41'57
		Chandbali							0'50	1	0'50	5'55	4'72	54'57	44'57
		Jagore								NH	NH	5'44	3'38	51'44	41'44
		Lalbagh								NH	NH	9'30	4'28	54'30	44'30
SOUTH.	Moorshedabad	Chandbali							0'40	1	0'40	5'53		51'53	
		Chandbali							0'50	1	0'50	5'50		51'50	
		Chandbali								NH	NH				
		Chandbali								NH	NH				
	Chittagong	Chittagong	0'08	0'51	0'40					1	0'45	3'70	7'20	128'05	10'20
		Chittagong	0'08	0'51	0'40					2	0'40	4'58	5'57	117'58	9'58
		Chittagong	0'08	0'51	0'40					1	0'45	5'51		111'51	9'51
		Chittagong	0'08	0'51	0'40					NH	NH				
	Chittagong	Chittagong	0'10	0'50	0'40					1	0'45	3'70	5'48	65'48	5'48
		Chittagong	0'10	0'50	0'40					2	0'40	5'00	7'33	75'01	6'33
		Chittagong	0'10	0'50	0'40					NH	NH				
		Chittagong	0'10	0'50	0'40					NH	NH				
SOUTH.	Chittagong	Chittagong								NH	NH	9'40	5'48	70'40	6'48
		Chittagong								NH	NH	5'17	5'74	65'17	5'74
		Chittagong								NH	NH	7'07	4'16	65'70	5'16
		Chittagong								NH	NH	5'51	5'59	64'51	5'59
	Chittagong	Chittagong								NH	NH				
		Chittagong								NH	NH				
		Chittagong								NH	NH				
		Chittagong								NH	NH				
	Chittagong	Chittagong								NH	NH				
		Chittagong								NH	NH				
		Chittagong								NH	NH				
		Chittagong								NH	NH				

## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 31st of October 1890—contd.

Division.	District.	Station.	RAINFALL.							TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall from 1st May 1890.	Average rainfall from 1st May to date.
			Saturday, 29th October.	Sunday, 30th October.	Monday, 31st October.	Tuesday, 1st November.	Wednesday, 2nd November.	Thursday, 3rd November.	Friday, 4th November.	Number of rainy days.	Amount of rain in inch.				
NORTH-BENGAL.	Hooghly.	Gourpadda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Bangaldia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Hooghly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Baruipur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	Furruckpore.	Madaripore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Furruckpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	Jalpaiguri.	Manchikunda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Dacca	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Narainkunda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Manickganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
MID-BENGAL.	Hill Trigon.	Agartala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Cumilla	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Chandpara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Brahmanbaria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	Nymansingh.	Kamakhya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Narainkunda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Dacca	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Narainkunda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
SOUTH-BENGAL.	Patna.	Patna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Patna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Patna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Patna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	Bogra.	Sherepore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Nowkhilla	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Bogra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Panchabibi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
	Kishoreganj.	Kishoreganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Kishoreganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Kishoreganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
		Kishoreganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00

## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 31st of October 1890—concl.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1890.	Average rainfall from 15th May to date.
			Saturday, 25th October.	Sunday, 26th October.	Monday, 27th October.	Tuesday, 28th October.	Wednesday, 29th October.	Thursday, 30th October.	Friday, 31st October.	Number of rainy days.	of Rainfall week.				
NORTH BENGAL—continued.	Chumpra...	Mothari	...	...	...	...	...	...	...	Nil	Nil	0.44	2.10	72.08	4.88
		Bhatia	...	...	...	...	...	...	...	Nil	Nil	4.89	2.32	64.82	4.88
		Bahar...	...	...	...	...	...	...	...	Nil	Nil	1.12	?	88.80	?
SOUTH BENGAL	Bard...	Gopalpura	...	...	...	...	...	...	...	Nil	Nil	1.67	2.09	22.67	4.27
		Bard...	...	...	...	...	...	...	...	Nil	Nil	0.21	4.90	80.84	4.27
		Chuprah	...	...	...	...	...	...	...	Nil	Nil	1.26	3.28	48.27	4.27
	Bhahabad	Bazar	...	...	...	...	...	...	...	Nil	Nil	1.86	3.36	52.47	4.27
		Dehree	...	...	...	...	...	...	...	Nil	Nil	0.28	2.10	43.14	4.27
		Bhahachah	...	...	...	...	...	...	...	Nil	Nil	0.31	2.17	41.11	4.27
	Gya	Namerata	...	...	...	...	...	...	...	Nil	Nil	0.14	2.74	44.10	4.27
		Arni	...	...	...	...	...	...	...	Nil	Nil	2.29	2.41	60.90	4.27
		Mohachah	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?
	Palta	Aoragabad	...	...	...	...	...	...	...	Nil	Nil	0.01	2.76	59.49	4.27
Gya		...	...	...	...	...	...	...	Nil	Nil	0.34	2.36	60.74	4.27	
Nowadab		...	...	...	...	...	...	...	Nil	Nil	0.43	2.68	54.61	4.27	
Manghyr	Jahangir	Jahangir	...	...	...	...	...	...	...	Nil	Nil	0.43	2.48	58.35	4.27
		Arical	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?
		Madanpur	...	...	...	...	...	...	...	Nil	Nil	1.67	?	36.31	?
	Shahpur	Shahpur	...	...	...	...	...	...	...	Nil	Nil	0.80	?	45.80	?
		Bahar...	...	...	...	...	...	...	...	Nil	Nil	2.37	?	54.34	?
		Pakri Barwan	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?
	Patna	Patna	...	...	...	...	...	...	...	Nil	Nil	1.02	2.46	50.02	4.27
		Dispur	...	...	...	...	...	...	...	Nil	Nil	1.07	2.37	52.18	4.27
		Bihar	...	...	...	...	...	...	...	Nil	Nil	1.11	2.23	46.36	4.27
	Barr	Barr	...	...	...	...	...	...	...	Nil	Nil	1.26	2.17	47.26	4.27
Barr		...	...	...	...	...	...	...	Nil	Nil	1.38	?	56.35	?	
Hilsa		...	...	...	...	...	...	...	Nil	Nil	1.07	?	56.24	?	
North Bhagalpur	Begunserai	...	...	...	...	...	...	...	Nil	Nil	2.28	2.19	44.24	4.27	
	Monohyr	...	...	...	...	...	...	...	Nil	Nil	2.36	2.68	64.84	4.27	
	Jamui	...	...	...	...	...	...	...	Nil	Nil	2.14	2.81	60.22	4.27	
Month Per-	Gangri	...	...	...	...	...	...	...	Nil	Nil	4.84	?	70.44	?	
	Shikpur	...	...	...	...	...	...	...	Nil	Nil	1.37	?	47.70	?	
	Bhagalpur	...	...	...	...	...	...	...	Nil	Nil	5.41	3.16	62.77	4.27	
Month Per-	Bhagalpur	...	...	...	...	...	...	...	Nil	Nil	3.05	3.48	42.11	4.27	
	Krigan	...	...	...	...	...	...	...	Nil	Nil	5.77	?	62.86	?	
	Bongora	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?	
Month Per-	Rajmehar	...	...	...	...	...	...	...	Nil	Nil	3.59	3.34	66.86	4.27	
	Gudon	...	...	...	...	...	...	...	Nil	Nil	4.90	5.07	50.70	4.27	
	Pakner	...	...	...	...	...	...	...	Nil	Nil	2.19	4.58	74.16	4.27	
Chuttna Nag-Pur.	Hemantpur	Nya Dornka	...	...	...	...	...	...	0.11	0.11	12.38	4.20	74.11	4.27	
		Imohar	...	...	...	...	...	...	...	Nil	Nil	4.18	4.20	40.44	4.27
		Jamui	...	...	...	...	...	...	...	Nil	Nil	18.25	3.40	74.28	4.27
Chuttna Nag-Pur.	Mukundpur	...	...	...	...	...	...	...	Nil	Nil	3.28	?	48.81	?	
	Namohar	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?	
	Chakraborty	...	...	...	...	...	...	...	Nil	Nil	3.08	3.17	68.35	4.27	
Chandpur	Chandpur	Hemantpur	...	...	...	...	...	...	...	Nil	Nil	1.33	3.15	49.06	4.27
		Kantachar	...	...	...	...	...	...	...	Nil	Nil	0.70	2.86	58.33	4.27
		Mahud: Hill	...	...	...	...	...	...	...	Nil	Nil	?	2.58	?	?
Chandpur	Jhoomra Hill	...	...	...	...	...	...	...	Nil	Nil	1.20	2.10	58.80	4.27	
	Bhagalpur	...	...	...	...	...	...	...	Nil	Nil	0.93	?	60.84	?	
	Bhagalpur	...	...	...	...	...	...	...	Nil	Nil	2.05	?	47.08	?	
Chandpur	Karagaha	...	...	...	...	...	...	...	Nil	Nil	5.80	?	57.34	?	
	Konghar	...	...	...	...	...	...	...	Nil	Nil	2.63	?	50.24	?	
	Chandpur	Chandpur	...	...	...	...	...	...	...	Nil	Nil	1.76	3.58	63.19	4.27
Chandpur	Chandpur	...	...	...	...	...	...	...	Nil	Nil	2.54	2.80	48.87	4.27	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	0.09	2.74	44.27	4.27	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	5.40	?	63.58	?	
Chandpur	Chandpur	...	...	...	...	...	...	...	Nil	Nil	1.29	?	43.82	?	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	Nil	?	41.78	?	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	Nil	?	39.46	?	
Chandpur	Chandpur	...	...	...	...	...	...	...	Nil	Nil	1.73	2.92	23.04	?	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	1.70	?	24.83	?	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	0.25	?	61.66	?	
Chandpur	Chandpur	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?	
	Chandpur	...	...	...	...	...	...	...	Nil	Nil	?	?	?	?	
Chandpur	Parul	...	...	...	...	...	...	...	Nil	Nil	2.08	3.09	44.21	4.27	
	Parul	...	...	...	...	...	...	...	Nil	Nil	2.55	3.87	23.03	4.27	
	Parul	...	...	...	...	...	...	...	Nil	Nil	2.24	?	01.80	?	
Chandpur	Parul	...	...	...	...	...	...	...	Nil	Nil	1.80	?	44.16	?	
	Parul	...	...	...	...	...	...	...	Nil	Nil	8.51	?	64.71	?	
	Parul	...	...	...	...	...	...	...	Nil	Nil	6.33	?	60.14	?	

Explanation.—... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 4th November 1890.



**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVA-  
TIONS TAKEN IN ASSAM, FOR THE WEEK ENDING FRIDAY, THE  
31st OCTOBER 1890.**

**WEATHER**, especially in the early part of the week, has been settled and fine over the whole province except in the south-west corner, where the influence of shallow local depressions in the south of the Bay gave showers and rather strong winds during the last three days. The first of these depressions crossed the extreme south of the peninsula, and the second, forming to the east, gave squally weather as far north as Diamond Island, where wind velocity rose to 17 miles an hour on Tuesday. This depression continued to influence the weather for some days, but as it approached the Madras coast it became very diffused and disappeared, leaving the pressure distribution characteristic of the season. A current of moist air, due to the disturbance, flowed northwards, and gave cloudy weather and scattered showers in Orissa and Lower Bengal, the heaviest rain falling in the Balasore and Midnapore districts on Friday, the last day of the week.

At the commencement of the week pressure was above 30 inches in Bengal and Assam, with lowest pressure in the centre of the province. Westerly or northerly winds were blowing at nearly all stations, and temperature, below the normal except in Orissa and the adjacent part of South-West Bengal, was falling rather rapidly almost everywhere. Pressure during the week underwent the usual small oscillations, but was never below the normal, and wind velocity was invariably low, while directions were irregular from the 28th to the 31st.

Pressure rose moderately on the 25th, fell slowly on the 26th, again rose moderately on the 27th, after which there was a slow fall till the last day of the week, when there was a very slow rise, the distribution being very little different from that at the beginning, but with lowest pressure in Orissa and isobars running east and west instead of north and south. The weekly means are above the normal except over the Darjeeling Hills, where, however, defect is only .003 inch. Elsewhere excess varies from a hundredth of an inch in the west of Assam and east of North Bengal to more than a twentieth of an inch in the southern districts.

Temperature has been generally below the normal except in Assam and Orissa, in the former of which mean excess is .4° and in the latter 1.1°. Defect is 2° in South Behar, 1.8° in Chutia Nagpur, 1.2° in North Behar, 1° in East Bengal, .9° in South-West Bengal, and .7° in North Bengal. The somewhat rapid fall of temperature at the beginning of the week continued till the 27th, when defect was between 3° and 4° at many stations, and averaged more than 3° in Chutia Nagpur and South Behar, and more than 2° in South-West Bengal. During the last four days changes were more irregular, but generally upwards. On the 31st excess prevailed except in Behar, North Bengal, and Assam, where there was still defect ranging up to 2°.

**Rainfall.**—Showers fell in East Bengal in the beginning of the week, and in Orissa and South-West Bengal at the end, while in the northern districts practically no rain has been received. Behar and Chutia Nagpur have been entirely rainless, and the average fall for North Bengal is only .01 inch. In the southern districts the mean falls are deficient, in East Bengal by .64 inch, in South-West Bengal by .53 inch, and in Orissa by .15 inch. Some heavy showers fell on Friday, Contai in the Midnapore district receiving 4.47 inches and one or two other stations more than one inch.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 31st of October 1890 :—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.	Since 1st of May 1890.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	80.6	68.6	86.9	78.5	80.3	+1.1	0.98	1.18	-0.20	1.3	1.2	0	8.51	6.10	61.08	51.24
South-West Bengal ... ..	80.3	68.1	85.0	68.0	77.1	-0.6	0.26	0.73	-0.48	0.9	0.9	-0.7	8.07	4.38	60.08	51.00
East Bengal ... ..	86.2	66.8	86.0	70.1	77.1	-1.0	0.25	0.80	-0.54	0.6	1.0	-0.5	4.92	8.43	71.25	72.39
North Bengal ... ..	67.9	63.5	64.0	67.3	75.9	-0.7	0.01	0.08	-0.07	0.1	0.0	-0.5	12.30	4.38	64.97	68.97
North Behar ... ..	86.6	68.9	84.7	68.6	78.1	-1.2	NH	0.68	-0.80	0.9	0.3	-0.3	8.00	3.24	64.39	67.90
South Behar ... ..	80.0	67.9	85.1	63.0	74.2	-2.9	NH	0.61	-0.61	0.0	0.4	-0.4	5.78	5.30	61.21	62.87
Chutia Nagpur ... ..	81.8	65.0	80.6	69.9	79.3	-1.3	NH	0.46	-0.40	0.9	0.7	-0.7	2.67	2.97	65.18	67.99
Assam ... ..	80.5	68.9	84.4	69.7	77.1	+0.4										

\* Chyabasa not included.

METEOROLOGICAL OFFICE, BENGAL;  
The 4th November 1890.

C. LITTLE,

Offg. Meteorological Reporter to the Govt. of Bengal.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
26th October to 1st November 1890.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 8 <sup>h</sup> Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	Weather.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour pressure.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Oct.	26th	138.5	10.3	29.928	75.3	83.4	16.1	67.2	70.2	0.669	67.3	77	WNW and calm	13	Nil	Clear, <i>a</i> .
"	27th	143.5	10.3	29.9	75.4	83.4	16.5	68.9	70.6	686	68.0	79	WSW and calm	19	"	Clear, <i>a</i> .
"	28th	141.6	9.8	29.72	75.4	82.8	16.6	67.2	70.5	695	69.0	79	Variable and calm	9	"	Chiefly clear, <i>a</i> .
"	29th	137.7	9.4	29.9	75.6	82.8	14.0	68.2	71.3	713	69.1	82	NNW and calm	12	"	Chiefly clear, <i>a</i> , <i>b</i> .
"	30th	141.1	6.5	29.21	79.6	83.1	12.5	69.6	72.7	753	70.7	88	ESE and calm	23	"	Partially cloudy, <i>c</i> , <i>a</i> .
"	31st	145.5	4.0	29.8	77.6	83.5	11.1	72.4	74.4	819	73.2	86	ESE and calm	27	"	Chiefly cloudy, <i>c</i> .
Nov.	1st	144.0	3.5	29.82	74.3	82.4	11.1	71.3	72.0	755	70.8	89	Variable and calm	36	0.01	Chiefly cloudy <i>d</i> , <i>a</i> .

The mean pressure of the seven days ... .. 29.938

The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 29.887

The total number of hours of bright sunshine ... .. 53.8

The maximum possible number of hours of sunshine ... .. 79.2

The mean temperature of the seven days ... .. 75.8

The average temperature of the corresponding period for 24 years, S.-G.'s Office 78.9

The extreme variation of temperature ... .. 16.6

The maximum temperature ... .. 83.5

The highest velocity of the wind in one hour ... .. 5

The highest pressure of wind on one square foot ... .. 1bs.

The mean relative humidity ... .. 82

The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... .. 75

The total fall of rain from 26th October to 1st November 1890 ... .. 0.01

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.84

The total fall from 1st January to 1st November 1890 ... .. 61.25

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 64.52

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

*a*, overcast; *d*, drizzling rain, *b*, dew; *c*, fog.

J. H. GILLILAND,

*For Meteorological Reporter to the Govt. of India.*

METEOROLOGICAL OFFICE, GOVT. OF INDIA;

Calcutta, the 3rd November 1890.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 26th October to 1st November 1890.

MONTHS.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall per 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour pressure at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
October	26th	29.989	77.2	85.4	18.2	66.9	81.1	69.4	670	62.8	54	...
"	27th	29.994	76.5	85.1	17.6	67.9	80.9	73.4	732	69.9	70	...
"	28th	30.034	76.4	84.2	15.6	68.6	81.3	71.6	645	66.2	61	...
"	29th	29.924	79.4	84.9	11.1	73.8	79.1	72.9	729	69.8	78	...
"	30th	29.989	77.6	84.4	18.3	70.8	82.4	76.3	823	73.4	74	...
"	31st	30.005	79.1	84.9	11.6	73.8	79.1	74.5	794	72.3	80	...
November	1st	29.987	77.6	82.9	10.7	72.2	80.6	75.0	794	73.3	76	...

The mean 10 A.M. pressure of the seven days ... 30.004  
 The mean temperature of the seven days ... 77.7  
 The extreme variation of temperature ... 17.5  
 The maximum temperature ... 85.4

The mean 10 A.M. relative humidity of the seven days ... 70%

The total fall of rain from 26th October to 1st November 1890 ... Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA ;

The 3rd November 1890.

## MEMORANDUM.

Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 11th October 1890.

## BIRTHS.

The births registered during the week ending with Saturday, the 11th October 1890, in twenty-seven principal towns of Bengal correspond to an annual rate of 29.5 per 1,000 of the aggregate population of those towns, which is 1,061,574. This rate is 5.3 higher than the average rate of the corresponding week of the past five years, and is also higher than the rate of the corresponding week of any of the past five years except 1889—vide the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years, 1885-89.	1890.
Rate of births per 1,000 of the population per annum	24.2	19.1	25.7	16.3	24.3	24.2	29.5

The births registered in each of the last four weeks in each of the twenty-seven principal towns correspond to the following rates per 1,000 of the population:—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	30th Sept. 1890.	27th Sept. 1890.	24th Oct. 1890.	11th Oct. 1890.		30th Sept. 1890.	27th Sept. 1890.	24th Oct. 1890.	11th Oct. 1890.
Bardwan	31.4	18.2	25.4	12.7	Narainganj	27.8	41.4	27.8	40.7
Midnapore	13.7	9.2	17.0	12.0	Chittavong	4.7	11.7	1.4	9.4
Hughli and Chinsurah	30.4	18.1	24.3	41.9	Comilla	19.3	27.0	15.4	27.6
Berhampore	25.1	41.2	47.1	40.1	Patna City	14.8	11.4	12.8	12.3
Uttarpara	27.7	24.2	2.4	15.7	Gya	42.3	25.0	20.9	20.7
Howrah	21.8	22.9	25.2	21.2	Arrah	67.4	1.7	4.9	45.2
Bah	10.5	17.3	22.1	21.5	Muzaffarpore	25.6	24.3	24.1	22.2
Krishnagar	17.3	17.3	23.6	9.6	Durghanga	27.0	22.1	21.9	42.8
Ranichhat	12.9	24.9	12.0	12.0	Chupra	22.2	12.1	15.8	42.4
Ranipore	14.0	2.2	23.3	1.3	Blasulpore	19.0	2.3	20.2	42.2
Jessore	...	18.2	...	8.1	Monghyr	40.1	32.8	57.2	58.8
Manipur Bazar	27.8	57.5	23.1	20.4	Purneah	17.4	10.4	11.4	20.8
Darjiling	27.0	44.5	22.2	21.2	Poori	12.8	12.6	14.7	19.9
Dacca	15.8	21.4	15.0	13.2					
					Total	20.8	22.2	20.7	29.5

It will be seen that last week the highest birth-rate was returned from Monghyr (57.2) and the lowest from Jessore (8.1).

## DEATHS.

The deaths registered during the week under review correspond to an annual rate of 25.3 per 1,000 of the population. The rate of the week is 3.6 below the average rate of the corresponding week of the past five years, and also below the rate of the corresponding week of any of the past five years except 1888—vide the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years, 1885-89.	1890.
Rate of deaths per 1,000 of the population per annum	27.1	22.9	21.0	20.5	20.2	22.9	25.3

The deaths registered in each of the last four weeks in each of the twenty-seven towns correspond to the following rates per 1,000 of the population:—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	30th Sept. 1890.	27th Sept. 1890.	24th Oct. 1890.	11th Oct. 1890.		30th Sept. 1890.	27th Sept. 1890.	24th Oct. 1890.	11th Oct. 1890.
Bardwan	22.8	24.4	20.5	24.4	Narainganj	18.8	4.1	16.4	27.2
Midnapore	17.0	12.4	15.2	27.9	Chittavong	16.7	12.4	12.4	16.4
Hughli and Chinsurah	24.5	21.2	24.5	27.9	Comilla	19.8	15.4	7.7	15.4
Berhampore	22.4	40.1	22.4	22.2	Patna City	14.9	11.4	14.9	20.4
Uttarpara	22.2	12.2	22.2	22.2	Gya	22.9	20.2	47.1	24.0
Howrah	17.2	14.9	12.2	1.2	Arrah	22.9	22.2	12.2	24.2
Bah	22.4	22.1	24.5	22.1	Muzaffarpore	22.2	12.4	22.2	22.2
Krishnagar	21.1	12.0	12.0	1.7	Durghanga	22.2	22.0	22.4	22.2
Ranichhat	12.4	2.0	2.0	12.0	Chupra	22.2	11.2	22.2	27.2
Ranipore	12.4	...	12.2	2.2	Blasulpore	17.2	22.2	14.2	14.2
Jessore	12.4	...	12.2	2.2	Monghyr	22.2	22.2	22.2	22.2
Manipur Bazar	22.2	22.2	22.2	22.2	Purneah	17.2	12.2	10.4	17.2
Darjiling	12.2	22.2	22.2	22.2	Poori	21.0	14.7	22.2	22.2
Dacca	21.4	22.1	17.2	12.2					
					Total	22.4	22.4	22.0	25.3



It will be seen that last week the highest mortality occurred in the town of Gya (54) and the lowest in Santipore (3.5).

Measured by last week's mortality, the highest annual death-rates from cholera, fever, and other causes occurred in the following towns:—

Cholera.		Fever.		Other causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Gya	9.6	Rampore Beanleah	33.4	Poori	14.7
Durbhanga	9.4	Gya	36.2	Midnapore	13.9
Mozufferpore	7.3	Burdwan	22.4	Serampore	13.7
Arrah	7.2	Serampore	21.6	Monghyr	13.6
Chupra	5.0			Chupra	11.1
Patna City	4.9				

The total mortality from the several registered death-causes in the twenty-seven principal towns amounted to 3 from cholera, against 2.3 per 1,000 in the preceding week; 4 from small-pox, against 5; 12.7 from fever, against 11.7; 2.6 from bowel-complaints, against the same ratio; 6 from injury, against 3; and 6.1 from other causes, against 5.6 in the preceding week. The mortality from bowel-complaints is noticeably severe only in the Poori town, there being nine deaths (18.9 per 1,000 of the population).

The mortality of last week according to Sex, Class, and Age was as follows:—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	26.9	Christians	14.9	Under 1 year	188.4
Females	23.6	Hindus	27.8	1 and under 6 years	33.0
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population	114	Mahomedans	19.2	5 " 10 "	18.4
				10 " 15 "	12.4
				15 " 20 "	8.4
				20 " 30 "	12.3
				30 " 40 "	17.2
				40 " 50 "	18.7
				50 " 60 "	32.2
				60 years and upwards	70.4

Detailed information regarding the vital statistics of the twenty-seven principal towns dealt with in the above review will be found in the statement appended.

W. H. GRACE, Dip. Publ. Health, Camb.,

Sanitary Commissioner for Bengal.

The 3rd November 1890.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending with Saturday, the 11th October 1890.

DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			MORTALITY ACCORDING TO--										SEX.							
		Males.	Females.	Total.	Males.	Females.	Total.	DISEASE.										Males.	Females.						
								RATIO PER 1,000 OF POPULATION PER ANNUM.																	
								DEATHS FROM--																	
		NUMBER OF--			RATIO PER 1,000 OF POPULATION PER ANNUM.			RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS FROM--		RATIO PER 1,000 OF POPULATION PER ANNUM.		SEX.			

[illegible]

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
*The 3rd November 1890.*

W. H. GREGG, Dip. Publ. Health, Camb.,  
Sanitary Commissioner for Bengal.

## Eastern Bengal State Railway.

Abstract of principal commodities carried over the Eastern Bengal State Railway during the month of July 1890, as compared with the same month of the previous year.

STAPLES.	1890.		1889.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1890.	1889.		
Coal	Tons. 2,843	Tons. 2,231	Tons. 11,908	Tons. 64	Tons. 17,402	Tons. 11,619	Tons. 5,843	Tons. ....
Cotton, raw	2	117	10	67	119	77	42	....
Cotton twist and yarn—								
1.—European	...	...	...	...	...	...	...	...
2.—Indian	...	...	...	...	...	...	...	...
Cotton piece goods—								
1.—European—								
a.—in bales and bundles	2,120	130	1,897	201	2,266	2,198	68	....
b.—in boxes	...	...	...	...	...	...	...	...
2.—Indian—								
a.—in bales and bundles	...	...	...	...	...	...	...	...
b.—in boxes	...	...	...	...	...	...	...	...
Grains—								
1.—Rice	1,040	3,411	1,220	2,210	2,071	3,028	1,448	....
2.—Others	1,216	3,808	661	4,284	2,096	7,174	3,061	....
Hides and skins—								
1.—Hides of cattle—								
a.—Impressed	...	...	...	...	...	...	...	...
b.—Unpressed	...	...	...	...	...	...	...	...
2.—Skins of sheep, &c.—								
a.—Dressed	...	...	...	...	...	...	...	...
b.—Undressed	...	...	...	...	...	...	...	...
Jute—								
1.—Raw—								
a.—Screwed	...	...	...	...	...	...	...	...
b.—Unscrewed	...	...	...	...	...	...	...	...
2.—Gunny-bags and cloth	...	...	...	...	...	...	...	...
Metals—								
1.—Copper, unwrought	...	...	...	...	...	...	...	...
2.—Brass, unwrought	...	...	...	...	...	...	...	...
3.—Brass and copper, wrought	...	...	...	...	...	...	...	...
4.—Iron	...	...	...	...	...	...	...	...
5.—Tin	...	...	...	...	...	...	...	...
6.—Others	...	...	...	...	...	...	...	...
Oils—								
1.—Kerosine	778	...	1,312	8	716	1,330	554	...
2.—Others	410	76	231	8	485	239	246	...
Oil-seeds—								
1.—Linseed	...	...	...	...	...	...	...	...
2.—Rape and mustard	...	...	...	...	...	...	...	...
3.—Til or gingelly	...	...	...	...	...	...	...	...
4.—Niger	...	...	...	...	...	...	...	...
5.—Castor	...	...	...	...	...	...	...	...
6.—Pongy	...	...	...	...	...	...	...	...
7.—Others	...	...	...	...	...	...	...	...
Provisions—								
1.—Rice	104	601	123	169	785	321	464	...
2.—Others	445	178	343	408	853	331	522	...
Railway plant and rolling-stock	...	...	...	...	...	...	...	...
Salt	2,400	24	4,058	23	2,424	4,081	743	...
Sugar—								
1.—Unwashed	...	...	...	...	...	...	...	...
2.—Unwashed	675	200	847	484	1,180	651	529	...
Tea—								
1.—Foreign	...	...	...	...	...	...	...	...
2.—Indian	...	...	...	...	...	...	...	...
Wood—								
1.—Timber	59	88	178	46	83	234	151	...
2.—Firewood	1,093	...	1,946	...	1,045	1,946	901	...
Tobacco	...	...	...	...	...	...	...	...
All other articles of merchandise—								
1.—Unmanufactured	4,509	2,605	2,928	2,848	7,116	5,178	1,938	...
2.—Manufactured	...	...	...	...	...	...	...	...
Hay, straw, and wool (C. & S. E. Section)	537	...	771	...	537	771	234	...
Total	24,212	41,440	25,140	63,478	20,226	76,647	17,064	7,084

Comparative statement of the principal commodities carried over the Eastern Bengal State Railway during the month of July 1890.

INCREASE.		Tons.
Coal	...	5,843
For railway and dock consumption.	...	...
Rice	...	1,448
This increase was contributed by stations on the Northern Section, the Calcutta market being favourable.		
Jute, unscrewed	...	3,063
Koorhet, Goalundo, and Serajganj contributed about one-half of this increase and the Northern Section generally the remainder.		
Railway plant, &c.	...	2,206
For repairs and renewals.	...	...
Salt	...	743
The increase appears in the bookings from Chitpur.		
DECREASE.		Tons.
Jute, screwed	...	1,031
Narayanganj shows the principal falling off under this head.		
Oil-seeds	...	1,572
Good crops in the district, and an improved market.		
Tobacco	...	719
Kawnia and Rungpur show the principal decrease, said to be due to heavy rainfall and floods.		

CALCUTTA, the 24th September 1890.

F. P. QUINLAN,  
Examiner of Accounts.



## Bengal Central Railway.

Abstract of principal commodities carried over the Bengal Central Railway during the month of August 1890, as compared with the same month of the previous year.

STATIONS.	1890.		1889.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1890.	1889.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal	652	8	1,576	7	1,584	1,576		830
Cotton, raw								4
Cotton twist and yarn—								
1.—European								
2.—Indian								
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles	152		154		152	154		12
b.—In boxes								
2.—Indian—								
a.—In bales and bundles								
b.—In boxes								
Grains—								
1.—Rice	125	72	8	105	222	186	122	
2.—Others	57	10	71	85	57	450		343
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed								
b.—Undressed								
2.—Skins of sheep, &c.—								
a.—Dressed								
b.—Undressed								
Jute—								
1.—Raw—								
a.—Unscoured								
2.—Gunny-bags and cloth	2	2,307	1	2,553	2,307	2,553		3,408
Metals—								
1.—Copper, unwrought								
2.—Brass, unwrought								
3.—Brass and copper, wrought								
4.—Iron	30	8	25	22	30	25	10	
5.—Tin								
6.—Others								
Oil—								
1.—Kerosine	142		70		142	70	66	
2.—Others	147		83		147	83	64	
Oilseeds—								
1.—Linseed								
2.—Rape and mustard								
3.—Til or gingelly								
4.—Niger	107	58	83	159	222	245		17
5.—Castor								
6.—Poppy								
7.—Others								
Provisions—								
1.—Betel-nuts		375	1	88	375	30	339	
2.—Others	22	81	11	20	22	27	11	
3.—Others			10	20	21	20		10
Railway plant and rolling-stock								
Salt	253		230		253	230	23	
Sugar—								
1.—Dressed	80	160	7	154	170	161	9	
2.—Undressed								
Tobacco	34	30	27	52	73	59	14	
46 other articles of merchandise—								
1.—Unmanufactured	708	206	652	184	531	636	95	
2.—Manufactured								
Total	2,635	2,383	2,061	7,035	2,604	10,079	764	4,270

Comparative Statement of the principal commodities carried over the Bengal Central Railway during the month of August 1890.

## INCREASES.

Betel-nuts  
From Bengal Central Flotilla stations only

Tons.  
1,339

## DECREASES.

Coal  
Sufficiency of stock for Railway and Flotilla consumption.

350

Jute

3,408

The principal decrease was from Khootia, and is said to have been due to the dulness of the market.

FRED HENSLEY,

Examiner of Accounts and Joint Auditor.

CALCUTTA, the 11th October 1890.

## EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the 4 weeks ended 27th September 1890, as compared with the same period of 1889.

STAPLES.	1889.		1890.		Increase.		Decrease.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
ANIMALS, LIVING								
Horses, ponies, and mules	80	911	68	1,112	1,112	798		
Cattle	275	3,190	318	2,362	2,362			
Sheep and goats	7,408	1,686	3,258	3,788	3,788			
Other kinds								
Bovine	910	210	972	270	270			
Pig and rabbits	141	117	143	118	118			
Camel	1	1	1	1	1			
Goat	1	1	1	1	1			
Chinese and Japanese ware	4,96,034	1,74,001	4,43,554	1,47,404	53,580	7,497		
Coal and coke, up	27,07,929	8,00,018	28,24,923	8,37,983	1,25,054	51,063		
Ditto, down	19,302	17,882	6,703	3,368	15,599	13,941		
Cotton, raw	5,167	6,216	6,084	7,027	917	918		
Cotton, MANU-FACTURED.								
Twist and yarn (European)	14,648	8,827	13,040	7,472	1,608	1,355		
Ditto (Indian)	80,224	22,187	1,23,287	1,29,970	43,753	57,069		
Piece-goods (European)	82,470	12,298	23,790	14,809	68,680	1,350		
Ditto (Indian)	12	25	100	42	88	17		
Assafetida	1,544	2,276	1,500	2,370	56	93		
Drugs and MEDICINES.	681	617	518	334	163			
Indigo	3,317	1,803	3,309	893	514	349		
Madras or mahajil	32	22	65	10	33	23		
Turmeric	11,840	9,862	7,897	3,912	3,948	5,950		
Other kinds	3,824	4,848	3,195	4,054	629	844		
Marbleware and porcelain	478	840	840	840		31		
Jute, raw	22,222	4,015	57,107	4,805	34,885	24,515		
Jute, MANUFACTURED (gunny-bags and cloths).	44,339	22,330	16,237	16,237	28,102	4,500		
Other fibres, raw	4,907	1,175	3,325	1,897	1,582	722		
Ditto, MANUFACTURED	3,850	1,910	1,910	671	1,939	647		
Coconuts	2,734	3,504	10,000	3,977	7,266	308		
All other kinds	20,070	17,073	23,022	14,873	3,007	2,700		
Wheat	2,70,079	75,342	2,12,150	77,888	57,929	1,490		
Gram and pulses	3,12,740	10,123	2,10,000	17,083	1,02,740	5,750		
Rice, husked	4,71,290	10,123	3,50,400	64,083	1,20,890	31,400		
Do., unhusked	63,012	7,474	67,972	7,284	4,960	4,400		
Other rice and spring crops	1,67,482	25,880	71,342	12,400	96,142	13,480		
Government stores	24,781	64,805	29,991	31,788	5,207	18,017		
Shoes and leather	3,741	1,824	3,905	2,843	164	1,474		
Hides of cattle	21,478	11,394	17,141	8,822	4,337	2,682		
Hides of sheep, goats, and small animals.	18,010	9,970	12,324	5,003	5,686	212		
Horns	2,806	1,820	2,477	1,046	1,359	291		
Lac, dye	1,128	80	124	77	4	3		
Do., shell	3,872	3,287	1,401	283	2,471	3,004		
Do., stick and other kinds	20,918	11,910	20,298	10,163	880	1,057		
Leather, unmanufactured	2,194	2,444	2,718	3,540	546	594		
Ditto, MANUFACTURED	5,031	4,532	3,133	4,128	1,898	1,098		
Liquors	19,448	12,140	14,400	12,458	5,048	1,782		
Hats	561	340	674	368	113	43		
Hats	64,694	18,338	97,160	17,018	32,466	21,659		
Metals	21,008	14,700	68,075	39,540	47,067	13,000		
Metals, MANUFACTURED	1,08,118	67,818	1,10,470	58,213	2,352	1,330		
Other metals	7,103	4,871	6,108	6,974	1,000	497		
Ornaments	71,283	24,484	59,162	22,821	12,122	6,355		
Opium	890	814	683	1,034	214	160		
Paints and colours	1,471	3,183	3,083	2,275	808	1,101		
Fertilizers	87,863	29,741	27,063	29,884	41,121	354		
Other kinds	9,311	4,767	8,067	5,723	1,244	954		
Railway materials, Construction Account	2,20,507	5,108	1,40,410	4,460	71,097	688		
Ditto ditto. Formica	1,08,853	66,807	76,407	34,530	32,446	11,667		
Salt	4,10,474	82,883	4,71,500	83,675	61,026	10,902		
Salt, SO.	25,078	9,049	44,651	18,010	19,573	2,901		
Salt, SO.	13,803	3,808	11,408	5,523	2,385	635		
Mustard and rape	2,76,040	53,313	2,50,400	60,598	25,640	9,930		
Th' or sinjelly	44,030	7,061	32,580	17,355	11,450	67,030		
Other oilseeds	1,072	212	1,832	232	80	80		
Indigo seed	83,014	10,215	85,446	23,896	2,682	22,330		
Tobacco	16,982	6,012	8,442	3,852	8,530	3,630		
Other kinds	34,349	11,367	30,920	11,947	3,429	640		
Silk, raw	931	760	1,358	1,140	427	344		
Do., MANUFACTURED (European)								
Do., ditto (Indian)								
Spices	18,419	7,370	19,071	7,380	652	130		
Stone and marble	3,19,708	28,100	1,91,408	16,001	28,890	7,151		
Sugar	10,390	29,000	82,004	22,707	6,320	1,067		
Do., refined	43,014	10,782	47,314	8,602	4,290	2,470		
Do., Indian	4,115	3,975	9,715	8,346	5,600	1,330		
Do., Foreign								
Tobacco	23,044	7,037	30,607	10,360	7,316	3,323		
Wood	21,000	3,000	18,523	3,040	2,477	859		
Timber	10,940	607	7,440	410	6,000	180		
Firewood	800	848	878	878		180		
Wool, raw	1,739	3,733	1,738	3,733		30		
Wool, MANUFACTURED (European)								
Wool, MANUFACTURED (Indian)								
Shawl	1,08,015	1,01,812	1,91,071	1,11,340	82,256	10,244		
All other articles of merchandise	2,000	7,001	1,082	3,507	11,018	3,005		
Bones	87,024	11,514	35,040	1,005	2,004	870		
Potatoes								
Total	71,20,117	17,38,434	69,61,908	19,84,010	8,00,941	1,81,178	2,87,082	1,41,440

General remarks on the fluctuations of principal staples carried over the East Indian Railway during four weeks ended 27th September 1890.

## INCREASES.

Coal and coke.—There was an increase both in the upwards and downwards traffic; that in the former was chiefly due to larger takings by the Bombay, Harode and Central India Railway via Agra. The downwards increase was partly due to shipment to coast ports.

**Cotton.**—The increase was chiefly in despatches from Agra to Howrah and Cawnpore, for shipment and manufacture, respectively.

**Turneric.**—Chiefly in despatches from Howrah to stations in the North-West Provinces.

**Gunny bags.**—The improvement in this staple was chiefly in despatches from Howrah and neighbouring stations, to Cawnpore, Delhi, and the Punjab.

**Rice (husked and unhusked).**—The increase was due to considerable despatches of rice husked from stations on the Loop line to Howrah for shipment and to stations on the Oudh and Rohilkhand Railway.

**Other rain and spring crops.**—Chiefly in despatches from stations on the Sahibganj district to stations on the Dinapore district, and to the Bengal and North-Western Railway.

**Government stores.**—The increase was principally in ordnance stores from Howrah and Allahabad Fort to Ferozpur, Rawalpindi and other stations on the North-Western Railway.

**Railway material, Foreign.**—Chiefly in despatches of rails and other material from Howrah to Benares Cantonment, Delhi, and Umballa.

**Stones.**—Principally in stone ballast from Fakur to Chitpore.

**Sugar (refined and unrefined).**—There was a decrease in the weight carried attended with an increase in the earnings, and this was chiefly due to long distance despatches from Howrah to stations on the North-Western Railway. There was a falling off in short lead traffic on the "B" and "C" districts.

**Waxes.**—Chiefly in despatches from old Digha Ghat and old Moghalsara to Bally and Chitpore.

## DECREASES.

**Piece-goods, European.**—The falling off in this staple was chiefly in despatches from Howrah and Bombay via Jubbelpore.

**Grain and pulses.**—There was an increase in the weight carried attended with a decrease in earnings; the former was chiefly due to short distance traffic from Loop line stations to Howrah for ship-sent and local consumption; the decrease in earnings was in long distance despatches from stations on the "D" district.

**Brass and copper.**—Chiefly in despatches from Howrah consequent on the dull state of the import business generally.

**Salt.**—The falling off under this head was chiefly in despatches from Howrah owing to the dull state of the market and to earlier despatches last year in anticipation of the Durga Puja.

**Saltpetre.**—Limited demand at Howrah.

**Seeds.**—This is a continuation of the decrease reported last month, and was chiefly in mustard and other oil-seeds.

N. ST. L. CARTER, Traffic Manager.

TRAFFIC MANAGER'S OFFICE, CALCUTTA, the 31st October 1890.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 18th October 1890, on 1,625½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	TOTAL RECEIPTS.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. C.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	240,000	9,00,000 0 0	19,54,000 0	4,48,800 10 0	10,000 5 0	7,07,400 1 0	60,700	74,000	1,34,700
Of per mile of railway	147 11 9	5,540 11 9	12,000 0 0	2,740 10 0	6,100 5 0	4,350 2 2	37 0	45 5	82 5
For previous 10 weeks of last year	2,207,330	53,25,000 0 0	2,79,00,000 10	62,04,000 0 0	2,41,000 10 0	28,27,000 7 2	227,000	1,145,000	2,372,000
Total for 16 weeks	2,447,330	54,17,000 0 0	2,98,50,000 10	67,52,800 0 0	2,43,000 5 0	31,09,000 8 8	2,000,000	2,310,000	4,310,000
COMPARISON.									
Total for corresponding week of previous year	2,207,330	53,25,000 10 10	2,79,00,000 10	62,04,000 10 0	2,41,000 10 0	28,27,000 7 2	227,000	2,310,000	4,537,000
Per mile of railway corresponding week of previous year	147 11 9	5,540 11 9	12,000 0 0	2,740 10 0	6,100 5 0	4,350 2 2	37 0	45 5	82 5
Total to corresponding date of previous year	2,207,330	53,25,000 10 10	2,79,00,000 10	62,04,000 10 0	2,41,000 10 0	28,27,000 7 2	227,000	2,310,000	4,537,000

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1888.

RECEIPTS FOR WEEK ENDING 10TH OCTOBER 1889.			RECEIPTS FOR WEEK ENDING 10TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 10TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 10TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Rs.	Rs.
1,700	Rs. 8,00,000	Rs. 470	1,640	Rs. 7,07,000	Rs. 431	1,400	Rs. 2,33,00,000	Rs. 1,664	1,600	Rs. 2,17,10,000	Rs. 1,357	Rs. 1,000	Rs. 20,00,000

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 25th October 1890, on 1,526½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	234,044	Rs. A. P. 2,75,371 15 8	Mds. s. 14,34,407 30	Rs. A. P. 4,30,507 3 0	Rs. A. P. 15,850 14 0	Rs. A. P. 7,09,896 8 6	67,780½	79,780½	1,47,561
Or per mile of railway ...	178 7 8			275 11 1	11 0 10	465 3 7			
For previous 18 weeks of half-year ...	2,533,917	Rs. A. P. 28,17,655 5 9	Mds. s. 2,99,59,599 0	Rs. A. P. 67,24,373 0 0	Rs. A. P. 2,63,477 3 8	Rs. A. P. 1,00,00,504 6 2	1,046,819	1,218,402½	2,265,221½
Total for 17 weeks ...	2,767,961	Rs. A. P. 30,92,977 4 0	Mds. s. 3,14,30,906 30	Rs. A. P. 71,44,969 3 8	Rs. A. P. 2,75,384 0 8	Rs. A. P. 1,12,10,280 13 1	1,073,608½	1,298,183½	2,371,792½
COMPARISON.									
Total for corresponding week of previous year ...	203,842	Rs. A. P. 2,39,985 12 4	Mds. s. 21,03,793 30	Rs. A. P. 5,10,444 9 4	Rs. A. P. 95,426 8 6	Rs. A. P. 8,27,100 11 5	66,337	84,844	151,181
Per mile of railway corresponding week of previous year ...	156 1 6			333 10 2	13 6 8	542 3 11			
Total to corresponding date of previous year ...	4,081,610	Rs. A. P. 41,99,546 11 5	Mds. s. 3,54,25,294 30	Rs. A. P. 76,25,074 12 8	Rs. A. P. 2,84,660 0 10	Rs. A. P. 1,21,00,280 8 0	1,185,929	1,381,185	2,567,114

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
1,526½	Rs. 2,75,301	Rs. 642	1,526½	Rs. 7,09,896	Rs. 465	1,526½	Rs. 2,41,27,033	Rs. 327	1,526½	Rs. 2,34,23,151	Rs. 490	.....	Rs. 10,97,880

## PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 19th October 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	26,061	Rs. A. P. 29,051 0 9	Mds. s. 29,246 10	Rs. A. P. 2,778 5 0	Rs. A. P. 21 15 0	Rs. A. P. 24,816 9 0	2,265	674	2,939
Or per mile of railway ...	452	Rs. A. P. 335 5 3	Mds. s. 508 20	Rs. A. P. 48 7 2	Rs. A. P. 0 5 1	Rs. A. P. 431 8 1	.....	.....	.....
For previous 18 weeks of half-year ...	156,365	Rs. A. P. 81,076 4 9	Mds. s. 4,00,690 30	Rs. A. P. 30,869 3 0	Rs. A. P. 527 14 0	Rs. A. P. 7,13,903 7 0	17,009½	3,163	20,172½
Total for 16 weeks ...	182,426	Rs. A. P. 1,07,194 13 0	Mds. s. 4,29,937 0	Rs. A. P. 33,133 5 6	Rs. A. P. 549 11 0	Rs. A. P. 7,40,810 0 0	20,168½	3,836	24,004½
COMPARISON.									
Total for corresponding week of previous year ...	13,297½	Rs. A. P. 7,823 10 5	Mds. s. 37,861 30	Rs. A. P. 2,431 8 0	Rs. A. P. 41 1 0	Rs. A. P. 10,314 3 5	1,908	744	2,652
Per mile of railway corresponding week of previous year ...	232½	Rs. A. P. 135 12 2	Mds. s. 662 0	Rs. A. P. 48 12 9	Rs. A. P. 0 11 6	Rs. A. P. 180 0 8	.....	.....	.....
Total to corresponding date of previous year ...	220,732½	Rs. A. P. 1,24,034 8 7	Mds. s. 7,54,272 30	Rs. A. P. 35,778 1 0	Rs. A. P. 671 13 8	Rs. A. P. 1,00,679 9 1	22,177	11,064	33,241

\* The increase in coaching traffic is on account of pilgrims returning from Gya.

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 19TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 19TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 19TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 19TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
57½	Rs. 10,310	Rs. 180	57½	Rs. 24,347	Rs. 424	57½	Rs. 2,74,075	Rs. 160	57½	Rs. 2,67,555	Rs. 161	.....	Rs. 6,520



## PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 26th October 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	12,813	11,668 3 0	22,792 2	2,207 4 0	26 12 6	12,003 9 0	1,234	470	2,304
Or per mile of railway	223	203 14 3	531 0	38 9 8	0 8 0	243 0 8	.....	.....	.....
For previous 16 weeks of half-year	182,279	1,07,126 15 0	4,20,967 0	23,126 6 0	540 11 0	1,40,810 9 0	20,102	8,255	28,744
Total for 17 weeks	195,092	1,18,793 1 0	4,23,740 30	25,340 10 0	576 7 0	1,54,713 9 0	21,336	9,100	31,136
COMPARISON.									
Total for corresponding week of previous year	12,831½	7,631 10 1	20,012 0	1,978 9 0	27 6 0	9,635 6 1	1,745	640	2,385
Per mile of railway corresponding week of previous year	219	131 10 0	404 20	34 8 10	0 7 8	169 11 3	.....	.....	.....
Total to corresponding date of previous year	232,905	1,21,546 2 8	7,30,988 30	27,740 10 0	600 4 6	1,70,016 1 2	24,922	12,811	37,300

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 26TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 26TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 26TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 26TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Miles worked.	Receipts.	Per mile worked.	Miles worked.	Receipts.	Per mile worked.	Miles worked.	Total receipts.	Per mile worked per week.	Miles worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
57½	2,304	107	57½	12,042	246	57½	2,54,012 -	166	47½	2,51,467	104	.....	2,104

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 18th October 1890, on 32½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	14,353	3,570 3 0	8,535 0	221 7 0	8 0 0	3,807 10 0	584	44	948
Or per mile of railway	.....	109 7 4	.....	14 7 1	0 4 4	175 8 9	.....	.....	.....
For previous 16 weeks of half-year	242,246	55,718 3 0	75,771 10	3,141 4 0	74 10 0	41,034 1 0	12,841	663	14,234
Total for 16 weeks	256,627	69,298 6 0	84,306 10	3,462 11 0	80 10 0	45,941 11 0	14,465	757	15,202
COMPARISON.									
Total for corresponding week of previous year	16,030½	6,178 9 0	23,314 10	415 8 0	0 3 0	4,600 4 0	919	53	964
Per mile of railway corresponding week of previous year	.....	187 12 10	.....	16 10 10	0 4 5	200 12 1	.....	.....	.....
Total to corresponding date of previous year	264,912	69,947 3 0	1,15,600 0	3,385 0 0	83 12 0	72,410 3 9	14,774	856	15,430

Approximate Statement of gross receipts of the Tarkessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 18TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Miles worked.	Receipts.	Per mile worked.	Miles worked.	Receipts.	Per mile worked.	Miles worked.	Total receipts.	Per mile worked per week.	Miles worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
32½	4,604	207	32½	3,594	170	32½	1,40,038	240	22½	1,50,030	234	.....	4,373

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 25th October 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	13,430	Rs. A. P. 2,810 0 0	MDS. 2. 7,365 19	Rs. A. P. 332 14 7	Rs. A. P. 7 8 0	Rs. A. P. 4,200 8 0	830	40	870
Or per mile of railway ...	171 2 0	171 2 0	...	13 2 7	0 5 8	184 11 9	...	...	...
For previous 16 weeks of half-year ...	263,827	28,238 8 0	84,206 16	3,402 11 6	30 10 0	32,081 11 0	14,404	797	15,201
Total for 17 weeks ...	277,257	31,048 8 0	85,572 32	3,735 3 0	30 5 0	32,265 1 0	15,234	797	16,031
COMPARISON.									
Total for corresponding week of previous year ...	13,338	3,323 3 3	26,148 34	418 15 0	12 10 0	3,853 10 3	930	200	1,130
Per mile of railway corresponding week of previous year ...	144 16 1	144 16 1	...	18 11 8	0 5 1	184 11 9	...	...	...
Total to corresponding date of previous year ...	264,244	28,180 5 4	84,842 30	3,302 2 0	26 8 9	31,507 13 11	15,277	1,115	16,392

Approximate Statement of gross receipts of the Tarkeessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI/Railway, dated 23rd July 1888.

RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 25TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
22½	Rs. 3,682	Rs. 164	22½	Rs. 4,110	Rs. 185	22½	Rs. 1,38,706	Rs. 258	22½	Rs. 1,34,790	Rs. 232	Rs. 3,994	Rs. 3,815

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, E.-D., AND ASSAM-BHAR SECTIONS.)

Approximate Return of Traffic for week ended 11th October 1890, on 783 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steamer-bus.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	121,086	Rs. A. P. 73,848 8 0	MDS. 2. 7,31,106 0	Rs. A. P. 1,08,083 8 0	Rs. A. P. 17,090 0 0	Rs. A. P. 2,65,080 0 0	19,826	28,334	48,160
Or per mile of railway ...	155	155 0 0	938 0	265 0 0	22 0 0	338 0 0	...	...	...
For previous 16 weeks of half-year ...	1,915,868	7,81,200 0 0	76,88,808 0	10,60,803 0 0	2,06,472 0 0	12,47,538 0 0	801,847	448,798	1,250,645
Total for 17 weeks ...	2,036,954	8,57,140 0 0	84,24,677 0	11,68,886 0 0	2,23,564 0 0	12,71,102 0 0	821,673	490,596	1,312,269
COMPARISON.									
Total for corresponding week of previous year ...	121,488	30,868 8 0	4,62,900 0	1,54,484 0 0	14,128 0 0	2,01,480 0 0	21,124	28,587	49,711
Per mile of railway corresponding period of previous year ...	155	39 0 0	592 0	207 0 0	22 0 0	269 0 0	...	...	...
Total to corresponding date of previous year ...	2,000,073	8,48,082 0 0	83,82,106 0	11,72,847 0 0	2,23,601 0 0	12,41,740 0 0	825,440	489,810	1,315,250

\* Audited up to week ending 30th August 1890.

† Excluding steamer earnings.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 15TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 15TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 15TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 15TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
783	Rs. 1,34,513	Rs. 172	783	Rs. 1,34,010	Rs. 172	783	Rs. 48,57,228	Rs. 62	783	Rs. 48,14,584	Rs. 61	Rs. 42,848	Rs. 42,848

\* Audited up to week ending 30th August 1890.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 11th October 1890, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	27,230	9,039 0 0	80,800 0	6,550 0 0	70 0 0	16,270 0 0	2,008	2,000	5,008
Per mile of railway ...	225	77 0 0	655 0	52 0 0	1 8 8	130 0 0	...	...	...
For previous 14 weeks of half-year ...	249,729	1,06,709 0 0	2,35,331 0	41,767 0 0	2,408 0 0	71,56,914 0 0	40,643	28,899	75,543
Total for 15 weeks ...	277,559	1,16,339 0 0	2,35,031 0	48,367 0 0	2,478 0 0	1,07,124 0 0	52,311	39,899	94,210
COMPARISON.									
Total for corresponding week of previous year ...	25,849	8,508 0 0	82,114 0	9,717 0 0	68 0 0	18,287 0 0	3,170	2,633	6,803
Per mile of railway corresponding period of previous year ...	121	55 0 0	715 0	78 0 0	...	145 0 0	...	...	...
Total to corresponding date of previous year ...	415,410	1,83,918 0 0	9,07,901 0	96,111 0 0	2,718 0 0	2,23,743 0 0	52,734	34,776	91,510

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 11TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 11TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 11TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.	
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.			
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
125	11,267	146	125	10,270	150	125	4,15,899	119	125	2,82,708	98		23,887	

\* Audited up to week ending 30th August 1890.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for week ended 11th October 1890, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	19,230	5,850 0 0	29,530 0	2,690 0 0	120 0 0	8,560 0 0	2,410	710	3,120
Per mile of railway ...	223	68 0 0	343 0	31 0 0	1 0 8	100 0 0	...	...	...
For previous 14 weeks of half-year ...	208,193	65,699 0 0	1,83,386 0	19,089 0 0	4,078 0 0	70,134 0 0	35,141	9,971	45,112
Total for 15 weeks ...	227,113	71,538 0 0	2,23,756 0	19,089 0 0	4,198 0 0	84,764 0 0	36,551	10,681	46,232
COMPARISON.									
Total for corresponding week of previous year ...	12,408	4,961 0 0	39,640 0	3,234 0 0	79 0 0	7,804 0 0	2,510	720	3,230
Per mile of railway corresponding period of previous year ...	144	49 0 0	461 0	37 0 0	1 0 0	87 0 0	...	...	...
Total to corresponding date of previous year ...	219,087	68,647 0 0	2,39,663 0	24,234 0 0	2,240 0 0	96,328 0 0	37,405	12,486	50, 8

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 11TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 11TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 11TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	7,504	87	86	2,380	100	86	1,70,507	71	86	1,76,625	75	9,118	

\* Audited up to week ending 30th August 1890.

## NALHATI STATE RAILWAY.

Approximate Return of Traffic for week ended 11th October 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	2,998	1,076 0 0	15,110 0	854 0 0	20 9 0	3,940 9 0	880	170	760
Or per mile of railway ...	109	39 0 0	552 0	31 0 0	1 0 0	75 0 0			
For previous 14 weeks of half-year ...	20,937	15,986 0 0	1,32,404 0	7,254 0 0	380 6 0	*31,429 0 0	7,692	5,214	12,906
Total for 15 weeks ...	42,917	16,096 0 0	1,40,518 0	8,214 0 0	230 6 0	33,409 0 0	8,172	5,384	12,556
COMPARISON.									
Total for corresponding week of previous year ...	2,915	1,045 0 0	10,022 0	581 0 0	32 0 0	1,638 0 0	1047	231	817
Per mile of railway corresponding period of previous year ...	103	38 0 0	368 0	21 0 0	1 0 0	61 0 0			
Total to corresponding date of previous year ...	44,827	16,473 0 0	1,37,498 0	9,026 0 0	1,226 0 0	28,796 0 0	8,040	5,472	13,112

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 12TH OCTOBER 1889.			RECEIPTS FOR WEEK ENDING 11TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 12TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 11TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
87½	1,638	61	87½	1,640	76	87½	51,375	60	87½	*49,481	65		3,896

\* Audited up to week ending 30th August 1890.

## BENGAL AND NORTH-WESTERN AND TIRHOOT RAILWAYS.

## COMBINED SYSTEM.

Approximate Return of Traffic for week ended 18th October 1890, on 601 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week (on 621 miles open) ...	71,380	26,066	2,45,886	80,076	6,340	62,460	13,996	10,813	24,809
Or per mile of railway ...	115,090	37,128	395,784	131,911	10,368	100,339			
For previous 14 weeks of half-year ...	1,081,374	4,15,899	39,30,954	4,41,780	94,407	5,44,536	176,004	186,868	362,872
Total for 15 weeks ...	1,152,754	4,44,909	39,30,954	4,71,800	*1,00,557	10,16,990	190,000	177,104	367,104
COMPARISON.									
Total for corresponding week of previous year ...	71,777	26,803	2,32,819	75,461	6,513	67,687	9,000	11,751	20,751
Per mile of corresponding week of previous year on 616 miles open ...	116,400	43,344	411,830	122,339	10,554	100,119			
Total to corresponding date of previous year ...	1,180,908	4,21,401	41,30,508	4,37,444	1,21,863	10,38,711	176,800	308,944	377,300

\* Steam-boat earnings for the week, Rs. 4,928.  
Ditto ditto to date, .. 75,410.\* Ajodhya bridge earnings for the week, Rs. 100.  
Ditto ditto to date, .. 3,610.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal and North-Western and Tirhoot Railways.

RECEIPTS FOR WEEK ENDING 12TH OCTOBER 1889.			RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 12TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 18TH OCTOBER 1890.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
621	62,460	20,39	640	57,387	20,19	672	28,40,674	194,36	640	23,38,364	181,31	2,314	

N.B.—Earnings of B. and N.W. Section.  
Week ended 12-10-89.      Week ended 12-10-90.Earnings of Tirhoot Section.  
Week ended 12-10-89.      Week ended 12-10-90.

Coaching	13,210
Goods	11,530
Other earnings	5,990
Total	20,730

Coaching	13,261
Goods	10,794
Other earnings	2,395
Total	26,450

Coaching	12,793
Goods	14,540
Other earnings	2,890
Total	30,223



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 12, 1890.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

### CONTENTS.

Page.	Page.
Resolution on the Administration Report of the Calcutta Municipal Corporation for the year 1889-90 ...	2347
Resolution on the Administration Report of the Tributary States of Orissa for the year 1889-90 ...	2355
Resolution on the Report of the Board of Revenue on Wards and Attached Estates in the Lower Provinces for the year 1889-90 ...	2353
Resolution on the Board's Report on the Land Revenue Administration of the Lower Provinces for the official year 1889-90 ...	2351
Resolution on the General Administration Report of the Patna Division for the year 1889-90 ...	2355
Resolution on the Administration Report of the Commissioners of the Port of Calcutta for the year 1889-90 ...	2359
Rainfall, Weather, and State and Prospects of the Crops ...	2374
Statement showing the stocks of rice in and around Calcutta from current (rabi) of Food-grains, Fire-wood and Salt in the Head-quarter Station Bazzars of the districts of Bengal on the 31st October 1890 ...	2373
Meteorological Report of the Province of Bengal for the month of October 1890 ...	2374
Table of Rainfall recorded at Stations in Bengal in October 1890 ...	2386
Meteorological Report of the Province of Bengal for the week ending Friday the 7th of November 1890 ...	2386
Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 7th of November 1890 ...	2386
Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of October 1890 ...	2387
Results of the Meteorological Observations taken at the Alipore Observatory from 2nd to 8th November 1890 ...	2394
Abstract of the results of the Barometric and Thermometric Observations taken at 10 A.M. at the Meteorological Office, Chowringhee, in the month of October 1890 ...	2394
Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 2nd to 8th November 1890 ...	2394
Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 18th October 1890 ...	2394
Orissa Circle—Taldanda Canal System for the month of July 1890 ...	2310
Circular and Eastern Circle for the week ending 18th October to 1st November 1890 ...	2392
Weekly Return of Traffic Receipts on Indian Railways ...	2392

## RESOLUTION ON THE ADMINISTRATION REPORT OF THE CALCUTTA MUNICIPAL CORPORATION FOR THE YEAR 1889-90.

### MUNICIPAL DEPARTMENT—MUNICIPAL.

*Darjeeling, the 4th November 1890.*

#### RESOLUTION.

#### READ—

The Administration Report of the Calcutta Municipal Corporation for the year 1889-90.

This is the first report submitted by the Commissioners of the Town of Calcutta on the working of the Municipality under the Calcutta Municipal Consolidation Act II of 1888. As the area of the Town now comprises the amalgamated area of the Suburbs, the general statistics given are not comparable with those of previous years, and it is probably due to this cause, as well as to the fact that a new Chairman has been appointed after the close of the year, that the present report is in some respects less complete than others which have lately been submitted by the Commissioners. The Lieutenant-Governor observes that on previous occasions it has been usual for the Commissioners to summarise the reports they receive from their Health Officer and Engineer, and to describe in more or less detail in separate chapters the work done during the year in those departments. In the present year these important chapters have been omitted, while the subjects to which they refer have only received very



cursorily treatment in an introductory chapter, and it is necessary to examine the departmental reports in order to obtain any adequate appreciation of the work really done by the Municipality. The object of an administration report is, however, to lay before the public and Government a self-contained account of the work done during the year, and the Lieutenant-Governor would therefore be glad if in future reports the Commissioners would revert to their former practice and arrange to furnish fuller information under the heads of Sanitation and Engineering. At the same time it might be possible to curtail some of the other sections of the report, and so not increase the dimensions of a volume which is already sufficiently bulky. The Lieutenant-Governor desires also to express a hope that in future it may be found possible to submit this report with greater punctuality. It is due to Government on the 1st August, but the present report was not received until the 17th of October.

2. As might have been expected during the first year of the amalgamation, the duties which devolved on the Commissioners were exceptionally onerous. There were 31 general meetings against 14 in the previous year; 125 meetings of standing Committees against 56; 66 of special Committees against 28; and 57 of Sub-Committees against 33. Altogether the total number of meetings was 282 against 131. There were no less than 26 members who attended 50 meetings or more during the year, and seven members (of whom three were nominated and four elected) who attended over 100 meetings. The Lieutenant-Governor considers that these results, showing how largely the Commissioners devote their time and trouble without remuneration to municipal duties, afford the most satisfactory evidence of the growth of public spirit in the metropolis. The account given of the principal subjects under discussion at these meetings indicates the importance and variety of municipal interests under consideration. Among other items may be mentioned the new Central Road, the question of burning the town refuse, the extension of water-supply and drainage to the Suburbs, the question of legislation for lepers, the protection of wild birds, the maintenance of a public library, the preparation of bye-laws, and the reorganization of establishments in the amalgamated area.

3. The loan liability of the Corporation at the close of the year stood as follows:—

					Rs.
6 per cent. debentures	..	..	..	..	4,17,500
5     ditto	..	..	..	..	1,12,92,400
4½     ditto	..	..	..	..	10,48,300
					1,27,58,200
Consolidated loans from Government					60,11,610
					1,87,69,810

Two new 5 per cent. loans were raised during the year; one for 5 lakhs in June 1889 for water-supply, for which tenders amounting to Rs. 39,26,000 were received, and which was placed at an average premium of Rs. 5-14-8; and the other for 14 lakhs, which was incurred for both water-supply and drainage and the repayment of 6 per cent. debentures. The larger loan was raised in September, and the whole of it was taken up at rates varying from Rs. 3 to Rs. 5-12 premium. These results are satisfactory. The total borrowing power of the Commissioners is fixed by section 410 of the Act at such an amount as that the sum payable thereon annually by way of interest and as instalments due to the reserve funds shall not be more than 10 per cent. on the annual valuation of Calcutta. The amount of this valuation during the past year was Rs. 1,73,70,515, and at the present time, therefore, the Commissioners are legally competent to raise a loan liability on 5 per cent. debentures amounting to Rs. 3,46,00,000.

4. The actual income of the Municipality during the year was Rs. 42,17,121, and the actual disbursements amounted to Rs. 41,27,831. The principal items of receipts and charges are as follows:—

Income and expenditure.

RECEIPTS.	Rs.	EXPENDITURE.	Rs.
General rate at $9\frac{1}{2}$ per cent.	17,34,839	Interest on general loans including drainage	4,25,337
Sewage rate, &c., at 2 per cent.	3,10,034	Contribution for repayment of general loans	1,72,933
Water rate at 6 and 3 per cent.	9,11,028	General establishment	3,83,080
Lighting rate at 2 per cent.	3,02,269	Road department	4,14,289
Taxes	4,95,821	Gowkhana	1,69,221
Municipal Market	1,20,477	Conservancy	3,40,621
		Sewage rate charges	2,76,799
		Water rate charges, including interest on loans, Rs. 4,29,910, and contribution for repayment of loans, Rs. 1,70,917	8,33,830
		Lighting, &c.	3,17,860

The total rates now realized amount to  $19\frac{1}{2}$  per cent. on the annual valuation of assessable property, against a maximum of 23 per cent. allowed under the law, and the total incidence of taxation of all sorts is at the rate of Rs. 6-8-1 per head of the population according to the census of 1881.

5. The Lieutenant-Governor observes that the receipts from rates fell considerably short of the budget estimate, the total receipts under the four rates being Rs. 31,78,704 as against the estimate of Rs. 33,47,000, a total deficit of Rs. 1,68,296. The only explanation which the Commissioners give of this unusual discrepancy is under the head of the general fund (paragraph 83), where it is ascribed to short bustee collections and disputed assessments. It is evident, on analysing the collections, that it is in fact due to a large increase in the outstanding balances. The usual statement, bringing together all the balances of the different departments, has been omitted from the present report; but if the items are picked out from paragraphs 97 to 109 the result is found to be as follows:—

	Outstanding balances of rate bills.	
	End of 1888-89.	End of 1889-90.
	Rs.	Rs.
In the hands of Assessor	58,173	67,489
Ditto of Collector	23,014	80,615
Ditto of Joint Collector	...	42,208
Ditto of Warrant Superintendent	93,841	1,51,933
	1,78,028	3,42,276
		1,78,028
Excess of 1889-90 over 1888-89	...	1,64,248

It will thus be seen that the excess of outstandings corresponds very closely with the deficit in the collections, showing that the estimate was approximately correct.

6. The increase in the arrears is very briefly explained by the Collector in paragraph 100, and somewhat more fully by the Joint-Collector for the Suburbs in paragraph 103. It appears that it is attributable to the inevitable temporary derangement of the collecting machinery due to the addition of a large suburban area, and also to changes in the system of rating introduced by the new Act. The difficulties under which the Collectors laboured may be thus summarised:—

(1) *The collections of five quarters of the house rate within the year*—This rate used to be collected during the succeeding quarter, while the whole of the consolidated rate in which it has been merged under the new Act is collected during the currency of the quarter for which it is due. The result was that the bill department had to get through the work of five quarters in a year, and necessarily fell much into arrears at its commencement, while more persons than usual postponed payment of their dues owing to the double demand for the first quarter.

(2) *The recovery of rates for bustees from the landlords*.—This measure, as might be expected, met with much opposition from the landlords, who have

petitioned the Lieutenant-Governor, and are now petitioning the Governor-General in Council, to revert to the former system of collecting the bulk of the rates direct from the hut-owners. Under any circumstances, the collections of this portion of the rates during the first year of the operation of the new Act must have fallen very short of the demand, but the difficulty was enhanced by the impossibility of making out correct bustee bills in many cases till after the annual valuation required by the Act. Apart from his ordinary work of revaluation, the Assessor was overwhelmed with objections from bustee owners, especially in the added area, where he had no trustworthy materials to refer to until the bustees had been revalued; and looking to the difficulties with which he had to contend, it seems to the Lieutenant-Governor to be highly creditable to this officer that he should have so far surmounted them at the close of the year that the arrears in his hands of all sorts were only Rs. 67,489 against Rs. 58,173 at the beginning of the year.

In the statement showing the working of the Collector's Department the collections on account of bustees are not separated from those of the landlords' share of the consolidated rate, and the report of the Commissioners therefore does not show clearly the extent to which the bustee collections fell short of the demand; but the Lieutenant-Governor gathers from the statistics which are given that the total demand for bustees was Rs. 5,03,337, and that the arrears at the close of the year, excluding those for which the Collector is responsible, were—

	Rs.
In the hands of the Assessor	3,464
Ditto of the Joint Collector	14,843
Ditto of the Warrant Superintendent	51,962
	<hr/> 70,269 <hr/>

The total arrears in the hands of the Collector under the joint head of landlords' share of the consolidated rate and bustee bills were Rs. 60,102, while the arrears of the occupiers' share were Rs. 20,543; and if this latter figure can be taken as the measure of the similar arrears due from owners, it leaves Rs. 39,559 as the share of the bustee owners, in the hands of the Collector, thus raising the total arrears from all departments to Rs. 1,09,828. By the same process, viz., actual figures taken from the reports of the Assessor, Joint-Collector and Warrant Superintendent, and probable figures from the Collector's report, it appears that the amount remitted or cancelled was Rs. 20,979. It would seem, therefore, that the collections were approximately Rs. 3,72,590 out of the demand of Rs. 5,03,337, or 74 per cent. Considering the exceptional difficulties which beset the collection of these bills during the first year, this result is fairly satisfactory. The Lieutenant-Governor hopes that next year the Commissioners will furnish the statistics regarding these bills separately, and that they will show that good progress has been made in recovering the arrears. It is presumed that after a proper valuation has been made under the new Act of all the bustees in the old and added areas, the difficulties which are now experienced will disappear.

(3) *The increase in rates in the added area.*—Before the amalgamation the rate-payers in this area paid  $7\frac{1}{2}$  per cent. plus house service fees which varied with the valuation, but averaged about  $4\frac{1}{2}$  per cent. Under the new Act the rates were raised to 19 or 16 per cent., according as the water-rate was 6 or 3 per cent. So large an increase must obviously have augmented the reluctance of the rate-payers to pay with punctuality.

(4) *The unprecedented amount of work thrown upon the Assessor's department during the year of transition.*—This is another difficulty which, with the completed valuation of the bustees, may be expected to entirely disappear.

(5) *The new assessment system which has led to a general increase in the rating of residential houses.*—This has naturally been followed by an unusual number of objections, the decision of which throws much work on the Assessor's department, while the ratepayer refuses payment till his objection and appeal, if he appeals to the Small Cause Court, have been decided. This difficulty will only cease when the entire city has been revalued under the Act, and all objections and appeals have been disposed of.

It is thus evident that the collection of rate bills was rendered exceptionally difficult during the past year, and, under the circumstances, the increase in the outstandings does not appear to be larger than might have been reasonably expected; but of the five causes enumerated, only the 3rd and 5th will continue to operate during the present year, and their effect will be comparatively small. The Lieutenant-Governor trusts, therefore, that the year 1890-91 will close with the outstanding balance of the rate bills considerably reduced.

7. The working of the License Department appears to have been satisfactory. The receipts from the trade and profession

License Department.

tax, which had never before exceeded Rs. 2,65,996, rose to Rs. 2,79,313 for the old area and Rs. 34,951 were collected for the added portion of the Suburbs. Here, however, as elsewhere, the report is disappointing in that no attempt has been made to illustrate the working of the new Act. Most important changes were introduced by that Act in the system of assessments, the gradation of trades and professions and the penal sections, and the manner in which they have worked ought to have been set forth in the annual report for the first year of its operation.

8. As already stated, the annual valuation of Calcutta for the past year was Rs. 1,73,70,515. The apparent increase is only

Valuation.

Rs. 26,408, but the real increase is Rs. 2,76,408, after allowing for a nominal reduction of 2½ lakhs in the valuation of the Kidderpore dock premises. The Lieutenant-Governor understands that the Port Commissioners accepted a valuation of 7½ lakhs, being 7½ per cent. on the estimated capital outlay of their property, because under the Bengal Municipal Act they would only be called upon to pay one-fourth rates on the excess over one lakh of rupees; but that they demurred to this valuation being maintained under the Calcutta Municipal Consolidation Act, which fixes the lower percentage of 5 per cent. on the capital outlay, but charges full rates on the whole amount, and that they eventually consented to a compromise by which they should pay the full rates, but have the valuation reduced to 5 per cent. on the assumed capital outlay. Hence there is a nominal reduction in the assessed value which will, however, entail a considerable increase in the rates hitherto paid by the Port Commissioners. When the docks are completed a proper valuation will be made under the provisions of Act III (B.C.) of 1890.

9. The Commissioners appear to take an unfavourable view of the question of assessments under the new Act, and observe that "those who have to administer the law must

Assessments.

experience considerable difficulty in working it." In the Lieutenant-Governor's opinion, however, the figures which are furnished by the Commissioners seem to show that the assessment provisions of the Act were worked with facility. The whole area of Calcutta must be revalued under the law every six years, and during the past year five wards out of twenty-five, or more than the due proportion, came under revaluation, and the work was completed by the Assessor with punctuality. The wards revalued were those in which under-assessment had been very general, and the valuation was raised by the Assessor from Rs. 25,41,387 to Rs. 31,53,952. Out of 1,414 objections which were preferred, no less than 1,249 were filed on or after the 16th of March, and of these 22 were disposed of before the close of the year. The whole of the objections filed before the 16th March were duly disposed of. It is observed also that out of the 212 objections decided by the Chairman and Vice-Chairman, only 6, of which 2 were pending and 4 have been rejected, were appealed to the Small Cause Court within the year. These results indicate satisfactory promptitude in the disposal of work. They also show that the assessment provisions of the law were administered with leniency. It is no doubt a judicious policy, upon the first introduction of a principle of assessment which, however fair and reasonable, does considerably increase the taxation of those who were formerly much under-assessed, to lean upon the side of moderation. But it must be remembered that under-valuation in one direction is equivalent to the unfair augmentation of the burdens of those whose property is fully valued, and that justice to the rate-payers in general demands that no particular section of the community shall be treated with favour or partiality. Upon the Chairman, the Vice-Chairman, and Assessor of the Corporation rests the responsibility of seeing that assessments are equitably made in accordance with the law.

10. Owing to the large fluctuating population of Calcutta it is not possible to estimate the increase or decrease, as is usually done, by the number of births and deaths, and the vital statistics of the town are therefore still calculated on the census of 1881. Upon this basis the number of deaths in the town proper was 26.9 per thousand against 27.7, the mean of the decade; while in the amalgamated area of the Suburbs it amounted to 46.9 per thousand. The number of cholera deaths in the town proper was 1,071, which, with two exceptions, is the lowest mortality since the introduction of a pure water-supply. The Health Officer observes—

"The years 1871 and 1880 had respectively 800 and 805 deaths. There is a marked periodicity about these low rates from cholera, which seems to point to some biological law in the life history of the cholera contagion, in the form perhaps of some periodic struggle for existence which, when recovered from, is followed under favourable conditions for a time with a remarkable vigour. To remove those favourable conditions is practically to stamp out cholera, a consummation which, as far as Calcutta is concerned, will no doubt in time be effected. In the days before the water-supply, i.e. before 1863, there was a similar periodicity, only with this difference, that the lowest annual number of deaths was 2,270 and the highest over 6,829, whereas after the introduction of the water-supply the lowest was 800 and the highest 2,272."

11. Nothing could demonstrate more eloquently than those figures the immense sanitary boon conferred on Calcutta by the introduction of a water-supply. The Commissioners are to be congratulated on the vigour they have displayed in the administration of this department of the Municipality, and on the systematic manner in which they have extended the benefits received to all portions of the town. Shortly before the commencement of the official year under review a third pumping-station was opened at Halliday Street to remedy the scarcity of water in the riparian and other wards, and Dr. Simpson reports that the favourable effect on the cholera rate was at once marked and has been continuous. A fourth station will soon be constructed in Bhowanipore to supply the Suburbs. The work of connecting that portion of the Suburbs which could be directly supplied from the town mains was completed in September 1889, and at the close of the year the length of mains and services on the filtered system amounted to 184 miles. There are now 990 stand-posts on the filtered and 2,505 ground hydrants on the unfiltered system. The population supplied with filtered water at the date of the Engineer's report was 480,019, which includes 75,800 of the suburban amalgamated area. The supply had then reached an average of 35.4 gallons of filtered water and 8.9 gallons of unfiltered water per head of the population. Although these results have been attained at a great cost to the town, amounting in round figures to Rs. 1,42,72,897, there can be no doubt that this outlay has been amply repaid not only by the improved health of the inhabitants, but also by the increase of wealth and material prosperity which the reputation for improved sanitation has attracted to the city.

12. But important as the question of water-supply is, and beneficial as the outlay has been, the possession of good drinking-water is after all only one of the necessary conditions for the enjoyment of healthy life in a crowded city.

Ventilation of the city by proper streets and squares the most important sanitary want of Calcutta.

When all has been said, it must be admitted that the conditions of life in the Metropolis of British India are still highly insalubrious. The cholera map of Calcutta is still simply a map in which the whole of the native town appears one mass of red dots indicating cholera deaths during the year, and the inspection of this map, with its record of more than one thousand deaths from preventable disease, cannot fail to awaken in the mind of every one who sees it a sense of how much there still remains to be done to improve sanitation. Sir Stuart Bayley has always cordially acknowledged the value of the work already accomplished by the Commissioners, but at the same time he has taken every opportunity of pointing to the work there still remains to do. The success they have attained must be their strongest incentive to further effort. The Health Officer of the Corporation has, therefore, in the Lieutenant-Governor's opinion, rendered a valuable public service in now calling attention in the most prominent manner to the ventilation of the city by proper streets and squares, and to the enforcement of proper building regulations, as the most important sanitary measures which it remains for the Municipal Commissioners



to undertake. Pure air is as much a necessity for the public health as pure water, and the overcrowding of buildings, as Dr. Simpson points out, not only impedes the circulation of air and disseminates disease along the poisonous alleys, often not more than three feet in width, which divide house from house and harbour the germs of all disease, but it prevents the possibility of laying down proper and efficient drainage and hinders and adds to the cost of scavenging. The diagrams which accompany the Health Officer's report show convincingly the urgent character of the remedies he proposes. They show at a glance how the ground is covered with houses without open space between, and how narrow streets, winding lanes and numerous passages afford complete obstacles to efficient ventilation. The fine new street, known as the Central Road, which the Commissioners have at great expense determined to cut through the most overcrowded and overbuilt portion of the city, is a very praiseworthy enterprise and most creditable to the Municipality. This road will be 70 feet wide with 50 feet for carriage way, and nearly two miles long from the Hooghly Floating Bridge to the Sealdah terminus of the Eastern Bengal State Railway. The first section of this road from the bridge to Clive Street has been completed; the land acquisition for the rest is proceeding, and a considerable portion at the Sealdah end has been cleared of buildings. This road, though it is progressing less rapidly than the Lieutenant-Governor could wish, is a most important and valuable sanitary improvement. But it is justly observed by Dr. Simpson that this one street, however excellent it may be, will exercise but a small influence in doing away with the evil of congested and unregulated buildings, unless streets from north to south and south to north be constructed to meet it. The great structural defect which prevails, especially in Burra Bazar, but also throughout the whole of the heart of Calcutta where the residents of the city dwell, is, and always has been, due to the toleration of too many houses and too many people on too limited a space, instead of forcing them to spread out on a wider area. The plan or construction of the city being radically defective, the supply of every other sanitary improvement is only palliative while that constitutional defect remains. It will never be possible to wipe away the reproach under which Calcutta labours as the home of cholera until the present germ-laden air is as purified from contagion as is the filtered water now drunk by the people.

13. The necessity of ventilation has been emphasised by the process of tank-filling which for years past has been going on in the city. Each one of these tanks was a cup of poison, and their obliteration therefore was a positive boon of the highest quality. In place of the water from these tanks, worse than London sewage as it was described, the purest possible water is now supplied from the Pulta water-works. On the other hand, these tanks were open spaces which allowed the admission of air and placed some restriction on the crowding together of buildings. But now the sites on which the tanks formerly existed are being built over without stint or any regard to structural considerations, and one evil is thus rapidly giving place to another.

14. The demand for residential houses is now so great in Calcutta that there is a marked tendency to construct brick houses on bustee sites. But unwholesome as were the bustees, it were almost better from a sanitary point of view to have bustees through which the wind can permeate than groups of high houses if these are to be separated from each other only by narrow, tortuous and foul alleys which, in Dr. Simpson's expressive words, "signify obstruction of traffic, obstruction of proper circulation of air, overcrowding of houses and inhabitants with all their attendant evils, foul and inefficient drainage and pollution of air by sewage, by sewer gas, by unremoved filth from defective scavenging, and by the organic products given off from animals and men living in a crowded state."

15. Dr. Simpson then points out that the executive is powerless to prevent these defects under the existing law or bye-laws, that there is no regulation as to the minimum width of existing or new streets, and that the only real control the Commissioners can exercise is by planning out the city under section 208 of the Act, with the aid of engineers and medical men, in accordance with certain laid down sanitary principles. There are also the problems of the ventilation of houses and the ventilation of rooms to be considered. For all these difficulties the Health Officer proposes remedies in detail, and suggests

that a Committee formed of engineers, medical men and others should be appointed to thoroughly investigate and report on the whole subject.

16. The Lieutenant-Governor trusts that this suggestion will receive the very early attention of the Chairman and of the Commissioners.

17. The most important work undertaken in the Drainage Department of the Municipality is the survey for drainage of the Suburbs, which is still in progress. There are two parties engaged, one for the south-eastern area and the radical outfall into the Biddiadhary river, and the other for the southern area, which is for surface drainage only.

18. The total expenditure incurred on bustee cleansing and structural improvement during the year was Rs. 2,46,572. Under section 37, clause 7 of the new Act the Municipal Commissioners are required to devote to the improvement of the area added to Calcutta a sum of not less than three lakhs of rupees annually, and the Lieutenant-Governor requests that in future reports the manner in which this provision of the law has been complied with may be specifically stated. The information furnished on this subject in the present year's report is insufficient.

19. Upon the whole there can be no doubt that the administration of the Calcutta Municipality during the past year was marked by very satisfactory progress, great attention to work on the part of the Commissioners, and improvement in all directions. The extension of the water-supply and of suburban drainage, the improvements in the flushing of the sewers, the large sums expended on maintenance of roads, the inception of the new Central Road, the experimental construction of refuse incinerators, the revision of assessments, the acquisition of land for a new *dhobikhana*, and many other important matters, sufficiently attest the activity of the Commissioners and of the officers of the Municipality in the discharge of their duties. The year was also marked by harmonious relations between the Commissioners and the Executive, and the Lieutenant-Governor is glad to observe in the present report the absence of any jarring or discordant note.

20. The Lieutenant-Governor cannot conclude this Resolution without expressing his high appreciation of the services which have been rendered to the City of Calcutta by the late Chairman, Sir Henry Harrison. For nine years he was Chairman of the Corporation, and the successful administration of the affairs of the Municipality during this long period, the firm financial credit of the Commissioners, the innumerable sanitary reforms effected, especially the extension of the water-supply and the conservancy of bustees, the increase in material prosperity in the city which in consequence of these reforms has shown itself in so marked a degree that the value of land in Calcutta generally may be said to have doubled, the reorganization and reconstruction of nearly every department of work, the hearty zeal and co-operation with which the Commissioners as a body now unite with the Executive to advance the welfare of the city,—an attitude for which they were not always distinguished, but which is in itself the best testimony to the capacity of a Chairman,—the methodical and systematic development of civic administration in all departments, are a sufficient and lasting tribute to the manner in which Sir Henry Harrison has discharged the duties of his responsible, difficult, and thankless office. His name will always be honourably associated with the growth of municipal institutions in the Metropolis.

By order of the Lieutenant-Governor of Bengal,

H. J. S. COTTON,  
Secretary to the Government of Bengal.

RESOLUTION ON THE ADMINISTRATION REPORT OF THE  
TRIBUTARY STATES OF ORISSA FOR THE  
YEAR 1889-90.

POLITICAL

*Dated Darjeeling, the 4th November 1890.*

Read—

The Annual Report on the Administration of the Tributary States of Orissa for the year 1889-90.

Read also—

The Reports for the years 1887-88 and 1888-89 and the orders of the Lieutenant-Governor recorded thereon.

The Lieutenant-Governor is glad to observe that the instructions contained in last year's Resolution on this report have been followed in the preparation of the present one, which is concise and furnishes fuller statistics than before, but the Superintendent will be requested to observe greater punctuality in future in its submission. Mr. Hopkins held charge of the office of Superintendent of the Tributary Mebals of Orissa from the beginning of the year to the 31st December 1889, when he was relieved by Mr. Worsley, the present Superintendent.

2. Raja Balabhadra Sing Mandhata of Nayagarh having died heirless on the 2nd March last, Babu Raghunath Sing Hari Chandan, a relative of the late Chief, has been allowed by this Government to take possession of the guddi as a provisional arrangement, subject to the approval of the Government of India. This succession has been contested by the Raja of Khandpara, and the final decision of the matter is now under consideration.

3. "The partial failure of crops in consequence of the irregularity and deficiency of the rainfall during the years 1887-88 and 1888-89 brought about a scarcity of food-grains in most of the Tributary States and the Government estates of Angul and the Khondmals during the past year. The States of Mohurbhunj, Nilgiri, Keonjhar, Pal Lehar, Dhenkanal, and Atgarh were little affected by the distress, but it was severe in other places, and was further augmented by the outbreak of cholera and small-pox, which considerably increased the mortality. The people who suffered most were the aboriginal and semi-Hinduised tribes who form the landless class and live partly by labour and partly on jungle produce, and their sufferings were intensified in some cases by delay in the commencement of relief operations. On the appearance of serious symptoms of distress the necessity of vigilant supervision was impressed upon the Superintendent, and in July 1889 Sir John Edgar, K.C.I.E., C.S.I., Chief Secretary to this Government, was specially deputed for the purpose of making personal enquiries into the condition of Angul and some of the affected tracts in the Tributary States, as well as in the Regulation districts. Immediate measures were also adopted for the alleviation of the distress by the opening of relief works, supply of gratuitous relief, grant of money advances and agricultural loans, as well as loans to the Tributary Chiefs who applied for them, relaxation of forest rules, &c., the details of which have already been separately reported to the Government of India. The rainfall of the past year was much above the average of the three preceding years, and there has been, on the whole, a fair outturn of crops. The relief operations have consequently been discontinued and the people are reported to be in a comparatively prosperous condition. The following deductions from the events of the past year, recorded by the Superintendent, are interesting and instructive:—"The experience of the past year seems to enforce two important lessons—first, that in such tracts as the Tributary States, which are without good roads and communications, and in which professional grain-dealers are almost unknown, comparatively slight misfortunes, such as unseasonable drought and a failure of fruits and jungle produce following on two or three short harvests, may convert a temporary pressure into scarcity and sharp distress; and secondly, that no time must be lost in commencing relief operations when actual distress once appears."

The Superintendent finds no reason to suppose that there was an absolute want of grain last year in any of the affected tracts, and thinks that the holders in Angul would have opened their stores more freely if they had felt confidence that any deficiency of food which might occur would be supplied.

4. In a year of scarcity the public health could not be expected to be good. As noticed above, cholera and small-pox caused great havoc during the period of scarcity which lasted from April to November, but the actual statistics of mortality could not be collected, although an attempt was made with that object. In Angul alone the estimated deaths from these diseases were 3,028 and 131 respectively, while 1,974 more are attributed to starvation. After the rains of November malarious fever appeared in an epidemic form, and the people suffered from it severely. Influenza also broke out in several of the States during the past year. The total number of persons vaccinated during the year was 26,906, against 23,427 in the preceding year. It is strange that out of 73 and 490 operations in Baramba and Daspalla respectively not a single case is said to have proved successful, while in Angul 4,650 out of 4,758 were effectual. The Lieutenant-Governor has no great faith in the statistics appended to the report. It appears that there are no local trained vaccinators, and that there is no effective control over those who are brought in from Cuttack. Operations conducted in this way are not likely to commend themselves to the people, already prejudiced as they are against vaccination. The suggestion of the Superintendent to train local men as vaccinators and to let them work under the supervision of the local medical officers is a good one, and he will be requested to report the result of the reference he proposes to make to the Sanitary Commissioner on the subject. No new dispensary was opened during the year, but the existing institutions are reported to be gaining popularity.

5. The mineral wealth of the Tributary Mohals has not been completely explored, but it is probably not inconsiderable. Coal mines exist in Angul and Talchere, and there are mines of mica and stone quarries in Nilgiri, Dhenkanal, and Angul. Iron ore is found in Dhenkanal, Angul, Talchere, Mohurbhunj, and Athmullik. The principal industries are weaving and the manufacture of brass and bell-metal wares, but both are now on the decline. Gold washings carried on in river-beds in Mohurbhunj, Dhenkanal, and Angul have hitherto proved unremunerative. There was no export of food-grains during the past year owing to the scarcity, but oilseeds and forest produce were largely exported. The chief articles of import are salt and English-made cloths.

6. The statistics furnished of the civil and criminal cases instituted in the courts of the Tributary Chiefs do not include the large number of petty cases which are decided by them orally, and the proceedings of which are not recorded. The total number of civil and revenue cases in the courts in the Tributary States established under the authority of the British Government fell from 10,102 to 8,402, the decrease occurring chiefly in Angul, Baramba, Dhenkanal, Mohurbhunj, and Nursingpore. Out of 193 civil and 70 revenue appeals, 214 were decided during the year and 49 remained pending at its close. The total number of offences reported during the year was 2,614 against 2,691 in the preceding year; of these 2,074 were returned as true, against 2,057 in 1888-89. The number of cases brought to trial, including those pending from the previous year, was 1,982 against 1,865 in 1888-89; and of 4,287 persons concerned in these cases, 999 were acquitted or discharged, 3,216 were convicted, 22 died, escaped, or were transferred to other courts, and 51 remained under trial at the end of the year. There were only 75 criminal appeals, of which 15 were rejected, and in 35 the orders of the lower courts were confirmed, in 10 they were modified, and in 15 reversed.

7. In Angul the total realizable land-revenue demand for 1889-90 amounted to Rs. 47,117-14-11, of which Rs. 26,870-1 were collected during the year; of the large balance of Rs. 20,247-13-11 outstanding at the close of the year, which was due to the inability of the ryots to pay in consequence of failure of crops, Rs. 15,125 have since been realized. No land revenue is paid in the Khondmals. The total receipts of the Khondmal Road and School Funds amounted to Rs. 3,578-7 and Rs. 2,337-15-11 respectively, and the two funds showed a balance of Rs. 2,984-2-8 and Rs. 2,944-10-7 respectively at the close of the year. The following statement shows the demands and collections on

account of land revenue in the five States under the direct management of Government:—

Name of State.	Total realisable demand including arrears.	Amount collected during the year.	Balance outstanding at the close of the year.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Mohurbhunj	2,37,386 10 9½	2,19,467 6 9	17,919 4 0½
Dhenkenal	99,363 8 4	70,507 8 4	28,856 5 0
Baramba	34,388 9 5	19,562 8 4½	14,826 1 0½
Nursingpore	37,414 4 6	22,366 10 1	15,047 10 5
Pal Lehara	30,339 12 8	19,905 2 5½	10,434 10 2½

The high prices of food-grains and the very generally prevailing distress necessarily affected the realization of land revenue. The Mohurbhunj State has already been made over to its Chief, and the responsibility of Government for the collection of arrears no longer exists. In regard to the other States, the Superintendent has already issued instructions for the recovery of the arrears as early as possible. The financial management of these five States during the past year was satisfactory. The resources of the Pal Lehara State, which recently came under the management of Government, and which is involved in heavy debts contracted by the late Chief, require improvement, and the Superintendent has directed his special attention to this subject.

8. The settlement operations in Angul are nearly complete. The assessment work was finished in December last and shows an increase of revenue from Rs. 36,898 to Rs. 1,10,547. This very large increment has resulted, not from raising rates, but from changes in classification and especially from the assessment of lands brought into cultivation but hitherto unassessed. Still it would be impolitic and scarcely just to attempt to enforce the settlement completely at once. The Lieutenant-Governor has postponed the enhancement altogether till 1892; then the newly-assessed lands are to pay half rates for five years, at three-quarter rates for five years, and then for five years at full rates. These concessions will, it is hoped, prevent the settlement from being too great a burden. In the Mohurbhunj State 19 pergunnahs have been resettled since the assumption of its management by Government. Under the terms of the resettlement, the revenue of these pergunnahs has been increased from Rs. 79,133 to Rs. 1,97,428. The settlement of 70 villages in Nilgiri has been completed, and the result shows an increase of assessment from Rs. 6,955 to Rs. 14,747.

9. The total number of schools was 1,128 with 14,407 pupils against 1,182 schools with 15,153 pupils in 1888-89. There were seven girls' schools, the same as in the preceding year, but the number of pupils fell from 448 to 425. There were also 266 girls reading in the boys' schools during the past year. One girl passed the lower primary scholarship examination from Angul and obtained a scholarship. There were 1,592 children of the aboriginal races under instruction against 1,541 in the preceding year. The total expenditure on education in the Gurjats during the year amounted to Rs. 67,155, of which Rs. 7,570 were borne by Government.

10. The area of reserved forests in Angul was not extended during the year. The management of the forests is very expensive, the annual average expenditure of the last four years being nearly thrice as much as the receipts. This abnormal deficit is explained by the Superintendent to be due to the fact that Angul is unable to compete with the cheaper timbers of the neighbouring States. The distressed condition of the people during the past two years necessitated the relaxation of the forest rules with a view to allow them free access to the reserves to collect edible roots, fruits, sago-palm, iron stone, and fuel. With the object of improving the condition of the landless classes of Orissa and protecting them from scarcity in future, Sir John Edgar has made some valuable suggestions for reconstituting the forest reserves in Angul and Khurda and re-organizing their administration. The question is now under consideration. The forests in Mohurbhunj, Dhenkenal, Baramba, and Nursingpore were administered by the respective Managers of those States.

11. The remarks concerning the merits of officers will be noted in the Appointment Department. The Lieutenant-Governor has read with satisfaction



the favourable report which the Superintendent has given of the administration of Keonjhar, Hindole, and Athmullik by their respective Chiefs. Since the close of the year under report the minor Chief of Mohurbhunj has been placed in charge of the State. Both by his disposition and by his acquirements he appears to be well fitted for his high position, and there is much reason to hope that he will prove himself an efficient ruler.

ORDER.—Ordered that a copy of the above Resolution be forwarded to the Superintendent of the Tributary Mehals, Orissa, for information and guidance.

Ordered also that a copy of the report, together with a copy of the Resolution, be submitted to the Government of India, in the Foreign Department, for information.

Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. C. STEVENS,

*Offg. Chief Secy. to the Govt. of Bengal.*

# RESOLUTION ON THE REPORT OF THE BOARD OF REVENUE ON WARDS' AND ATTACHED ESTATES IN THE LOWER PROVINCES FOR THE YEAR 1889-90.

## REVENUE DEPARTMENT—LAND REVENUE.

*Calcutta, the 4th November, 1890.*

### RESOLUTION.

#### Read—

The Report of the Board of Revenue on Wards' and Attached Estates in the Lower Provinces for the year 1889-90.

The rent-roll of the Wards' and Attached Estates under the management of the Board of Revenue slightly exceeds the large sum of a hundred lakhs, or a crore of rupees a year,

Collections.

and the collections in 1889-90 were nearly 103 lakhs, being better than the current demand by Rs. 2,74,728. This result is the best ever attained, except in the year 1878-79. The explanation given in regard to the estates on which collections have been deficient are generally satisfactory, the exception being in the case of the Chandra Kumar property, Shahabad, where only 75 per cent. of the current demand was realized—a result attributed to the “unsettled condition of certain villages which are over-assessed, the villagers being burdened with debts incurred during the time of the late proprietor.” Upon this subject a special report will be made to Government showing what steps have been or should be taken to reduce any over-assessment established to the satisfaction of the Board and generally to assist in the restoration of prosperity. It is most necessary that Managers should observe every indication of the exceptional misfortunes which occasionally afflict particular villages, even on estates where the ryots as a body are doing well, and should be ready to aid in removing or mitigating the causes of distress, particularly when these are connected in any way with the assessment of rent. As to the Dhalbhum Estate, on which collections amounted to only 72 per cent. of the current demand, it is stated that “a large portion of the balance (Rs. 96,291) shown against pergunnah Dhalbhum alone is disputed and irrecoverable, as the resumed ghatwali tenures are said to have been assessed by the late proprietor's amla in a most perfunctory and summary manner without the knowledge of the tenants and without acceptance by headmen and tenure-holders.” And the Board add that, “with a view to dispose of the objection raised by the tenants, the remeasurement and re-assessment of 111 villages of the pergunnah have been undertaken.” The Lieutenant-Governor will be glad to learn the result of these remeasurements.

which should be observed with care by the Revenue authorities. In Deo the collections from the middlemen who farm the estate were very bad—a result attributed to opposition on their part to the management of Government. This is a matter requiring the careful attention of the Board and the Commissioner. The system of ticcadari management is not in itself commendable; it is maintained merely as an expedient for temporary convenience, to facilitate collections when the Manager is not, for any cause, able to do what is properly his own work; and if in this particular case the ticcadars perversely decline to meet their liabilities, the question arises whether it would not be wise to survey the estate at once and introduce khas management.

2. The good collections of the year have slightly decreased the large outstanding balances which constitute so objectionable a feature in the administration of these estates, while more has been done in the same direction by granting remissions (which generally means writing off debts barred by limitation), with the result that the arrears have been reduced from 108 lakhs to 82. This is satisfactory as far as it goes; but the Lieutenant-Governor considers that greater energy should be shown in the work of retrenching from the accounts, at an early period of the management, demands which cannot be recovered, because they were never valid, or because they are barred by limitation. The existence of such demands affords the inferior collecting agency an opportunity for embezzlement. The Srinagar Ward's Estate has been seven years under the management of the Board, and their attention has been repeatedly called to the large balances outstanding; yet a sum of Rs. 83,432 is entered as still due from the period before the Board took charge. The Bhowanipore Estate, with a rent-roll of Rs. 1,82,576, shows, after large reductions, a balance of Rs. 9,63,321, most of which is classified as bad and irrecoverable and must presumably be barred by limitation, if it was ever really due.

3. The Lieutenant-Governor notices with satisfaction that the claims of Government dues. Government on Wards' and Attached Estates have been satisfied during the year, the moderate balance (since paid) of Rs. 18,174 being more than equalled by advance payments made on other estates. This is an important branch of Wards' administration, which at one time received insufficient attention.

4. The general financial results of the year cannot be regarded as satisfactory, inasmuch as the debts due by estates increased from 45 lakhs to 48, the cash balances diminished from 24 lakhs to 17, while only four lakhs were invested or spent on the purchase of land. The law charges, which amount to nearly 18 lakhs, are heavy, and in this direction the Lieutenant-Governor would desire to see a reduction.

5. The amount spent on improvements, Rs. 66,930, is somewhat in excess of the expenditure under that head in previous years. But on some properties there is obviously a deficiency in this respect: for instance in Cossimbazar, with a rent-roll of over four lakhs, the outlay on improvements was only Rs. 4,668, while Rs. 75,067 were invested; in Narhan, with an income of nearly two lakhs, nothing was spent on improvements, while a lakh was invested. The Lieutenant-Governor is aware of the objection to sanctioning expenditure of this nature where the Manager cannot indicate any scheme for improvement, whether in the way of irrigation, drainage, planting of trees and fuel shrubs, or otherwise; but it is precisely such difficulties as these that a duly qualified Manager is expected to overcome. No Manager can be considered to have fully performed his functions if, on surrendering the estate to the Ward after a lengthened period, and having had surplus funds to use, he has done nothing for the property.

6. The most important improvements during the year were those made by effecting surveys and records of right under the Bengal Tenancy Act. It is very generally found that when the Court takes possession of an estate, the papers which should show what amount of rent is due from each ryot are unworthy of trust, and when such is the case, no greater benefit can be conferred on all the parties concerned in efficient management than to ascertain and record their permanent rights and liabilities. This should be done under existing orders whenever the Collector is unable, with regard to his responsibilities in proceedings of a

quasi-judicial character, to issue certificates for rents on the papers in the hands of the Manager. The object of these settlements is not to enhance rents or increase the income of the Wards, but to prepare a trustworthy rent roll, without which management cannot be efficient and the collection cannot be regular. On the estate first dealt with, that of Srinagar, the effect has been to yield more than 9 per cent. on the outlay, and similar results are being obtained elsewhere, but it is not to be assumed that settlements are to be made only when direct profit of this kind is to be expected. The Lieutenant-Governor learns without surprise that in one instance what was alleged to be the existing rent was actually reduced by nearly 50 per cent. on the ground that the soil had permanently deteriorated owing to fluvial action. Such changes in the character of the country are, when beneficial, made the ground for enhancement, and under the law (in this matter too frequently overlooked) the tenant is equally entitled to a reduction when the effect of the change is adverse to his interests. The progress made during the year was generally satisfactory. The survey of the Srinagar Estate—695 square miles—was completed under the efficient management of Mr. Collin, and the settlement will probably be finished during the current month. Maldwar has been finally dealt with. In Sunkorpore, Burdwan, Churamon, Koojung and Kanika the proceedings are in an advanced stage, and the Board may now with advantage consider what estates should next be taken in hand. There are indications in the present report to show that on some the rent-roll is not worthy of trust, and more information will be obtained on this subject if Collectors fully realize that it is their duty not to issue certificates on the mere statement of the Manager that a certain sum of rent is due without first ascertaining that he is in possession of accounts which show with certainty and accuracy what is the legal demand. As an indication of the loss which land-holders not unfrequently suffer for want of proper records, the following passage is quoted from the account given of the Burdwan Raj Estate:—

"In the course of the survey it was found that a large number of mouzabs belonging to the Raj, which had never been let in patni or otherwise alienated, had been taken possession of by other persons. In order to ascertain where they were situated and to enable the Court of Wards to adopt measures for resuming khas possession of them, a traverse and boundary survey of all lands appertaining to towjib Nos. 1, 3, and 4 of the Bankura district was ordered under section 3 of the Bengal Survey Act V of 1875. The Manager, Mr. Raily, has resumed khas possession of many of these mouzabs without opposition, and the persons in possession of others have applied to him to come to terms as to the settlement of them."

7. The Board give an account, which, except in one instance, is satisfactory, of the progress in education of each of the principal Wards. The subject is of the greatest importance, and the Lieutenant-Governor is glad to see that it meets with due attention.

8. The thanks of the Lieutenant-Governor are given to Mr. Haliday for his efficient management of the Wards Department during the year.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

*Secretary to the Govt. of Bengal.*

RESOLUTION ON THE BOARD'S REPORT ON THE LAND REVENUE  
ADMINISTRATION OF THE LOWER PROVINCES FOR  
THE OFFICIAL YEAR 1889-90.

REVENUE DEPARTMENT—LAND REVENUE.

*Calcutta, the 8th November 1890.*

RESOLUTION.

READ—

Board's Report on the Land Revenue Administration of the Lower Provinces for the official year 1889-90.

The Director's Report of the Department of Land Records and Agriculture, Bengal, for the year 1889-90.

Board's letter No. 630A, dated the 13th August 1890, submitting the latter.

The moderate decrease of Rs. 10,277 in the revenue demand is more than accounted for by the fact that the owner of Jellamoota, who for many years declined to accept the settlement of his property, has done so at last, thereby becoming entitled to a sum of Rs. 58,344 a year for collection expenses, which is deducted from the income of Government. The current demand for land revenue, thus modified, amounted to Rs. 3,81,02,828, and there were arrears of Rs. 29,20,128; the collections were Rs. 3,86,05,822, and the balance uncollected, after remissions, was Rs. 22,60,785. The collections were comparatively good, being in excess of the regular income, and the best for ten years. Turning to the districts in which less was realized than 90 per cent. of the total demand, including arrears, it may be remarked that Chittagong is mainly managed as a Government estate, and in such instances it is found impossible altogether to prevent the occurrence of arrears; the payments were really satisfactory during the year, inasmuch as they exceeded the rental. In Pooree the apparent result seems to have been brought about by an error of account, which, the Lieutenant-Governor notices with satisfaction, has since been corrected under the orders of the Board. As has been pointed out on a previous occasion, Collectors dealing with rent rolls compiled according to the Bengalee year, which ends in April, are not always sufficiently careful to exclude from the demand of the official year sums not due until after its close—a mistake which gives to their returns an unsatisfactory appearance, and by the inclusion of fictitious demands impedes supervision over real arrears. In Chumaparanand Midnapore exceptional calamities afford a sufficient explanation, and there remains only the cases of Furreedpore and Patna, as to which a separate report should be made. It is not clear why the owners of permanently-settled estates at Patna are more dilatory in payment than proprietors elsewhere, and the reference to pending settlements in Furreedpore is scarcely borne out by the figures given in Appendix X. Collections have been to some degree facilitated by the general adoption of the system of remittance by money-orders, of which 139,535 were issued during the year for an aggregate sum of over eleven lakhs.

2. The collections of the year on Government estates were good, being 104 per cent. on the current demand, and the Lieutenant-Governor approves of the remissions

made on a liberal scale in Majumoota on account of floods. This estate apparently accounts for the large uncollected balances in the Midnapore district. It is not the property of Government, but managed until the proprietor thinks fit to imitate the owner of Jellamoota by accepting settlement.

3. Out of 159,852 estates on the roll 13,656 estates or shares in estates became liable to sale during the year, and 1,273 were actually sold, the others being exempted, in almost every instance on account of the payment of revenue after the latest day fixed for that purpose, but on or before the day of sale. This practice of exemption requires regulation, too much being at present left to the discretion of individual Collectors, who have very little to guide them. The subject has been under the special consideration of Government during the year, and a Bill has been framed and circulated for opinion which has for one of its objects the framing of conditions under which payments made after the latest day

of payment and before the day of sale may be received. The number of cases in which sales were annulled on appeal is 30, and this seems to the Lieutenant-Governor somewhat large. If Collectors observed due diligence in seeing before sale that the simple preliminaries clearly prescribed by law had been complied with, such reversals, which introduce an element of uncertainty into the whole procedure, would be very exceptional. The Board may with advantage take measures to secure that due notice shall be taken of any case in which a Collector may fail to conduct a sale according to law, thereby giving reasonable grounds for setting it aside on appeal.

4. The working of the Public Demands Recovery Act, by which claims of the State other than those for land revenue are realized, was somewhat more satisfactory than in the

Certificate procedure.

previous year, inasmuch as fewer certificates were filed, more were executed, and the balance left pending was considerably reduced. The great majority of the certificates, as many as 72,224, were on account of the demand for road and public works cesses under Bengal Act IX of 1880—a demand as fixed and well known as that for the regular land revenue—and in nearly all such cases the default must have been wilful. It is where the procedure is used to recover a rent not fixed by any public authority that the greatest care is requisite in its working. In such instances the Collector or other officer issuing the certificate should always satisfy himself before so doing that there is satisfactory evidence as to the validity of the demand. This precaution is particularly required in the case of claims made by Managers for rent alleged to be due to Court of Wards' estates, where such rents have not been authoritatively fixed and recorded. It should be ascertained in regard to each estate, before the issue of certificates, that the accounts have been so kept as to prove that sums shown by them as due are really demandable under the law.

5. The Board and the Director of the Department of Land Records and Agriculture notice the inconvenience of the present

Settlements and records of rights.

system of reporting on settlement work according to the financial year, the natural period being that adopted for road cess purposes, that is, the year commencing with the cold weather on the 1st November. On this head a separate expression of opinion will be solicited. Now that very important settlements are being dealt with, it is desirable to make all subsidiary arrangements as perfect as may be possible. The larger settlements are supervised by the Director, who observes:—

"There were 83 estates," containing an area of 7,285 square miles, in 20 separate districts, under survey and settlement operations during the year. Of these, 51 are Government estates, with an area of 4,294 square miles, of which a resettlement of land revenue is being made; 9 are wards' estates, with a total area of 2,868 square miles, of which a survey, with a record of rights and settlement of fair rents, has been undertaken; and 23 are private zemindars' estates, with an area of 123 square miles, the owners of which applied for survey, record of rights, and settlement of rents, either on the ground of disputes existing between them and their tenants, or on the ground that they were new auction-purchasers and unable to ascertain the amounts of the rentals payable to them."

"It will be observed that survey and settlement operations under the Bengal Tenancy Act have extended over a vast area, comprising Government, wards' and private estates, in many districts and in every division in which the Act is in force; that these operations have affected a large number of tenants, aggregating at least four hundred thousand; that an increase of rent and revenue amounting to more than a lakh of rupees has been actually obtained, with the consent of the raiyats concerned, in the estates of which settlement has been completed or is approaching completion, yet in no single case has any rioting or disorder been reported, nor has anything like opposition of a formidable character been experienced. The number of appeals to the Special Judges from the decisions of Settlement Officers, compared with the number of such decisions, was exceedingly small. It may therefore, I think, be said that the anticipations of those who thought that these operations would lead to confusion and disorder have been wholly falsified by events. The cost of the professional survey operations has in some cases been in excess, and the cost of the settlement operations has been generally less than was estimated. On the whole, the cost has been about 8 annas per acre. Where highly-paid and efficient officers like Mr. Collin have been in charge of the operations, they ultimately cost less than where, as in some of the wards' estates in Dinagpore, lowly-paid and inefficient officers were employed. The status was recorded and the rents were settled of 171,647 tenants, of whom 5,604 are cultivating tenure and under-tenure-holders, 1,503 were recorded as raiyats at fixed rates, 102,727 as settled raiyats, 3,363

\* The word "estates" is here used in the sense of separate properties, not in the technical sense, according to which every area, with a separate kowjee number, is an estate. Each of these properties includes many "estates" in the latter sense.

as settled but non-occupancy raiyats, 20,894 as non-occupancy raiyats, and 37,556 as under-raiyats. These figures show that the number of—

<i>Tenure and undertenure-holders is</i> ...	3 per cent. of the whole.
<i>Settled raiyats</i> ...	60
<i>Non-occupancy raiyats</i> ...	12
<i>Raiyats at fixed rates</i> ...	1
<i>Occupancy, but not settled</i> ...	2
<i>Under-raiyats</i> ...	22
	100

The Board, in forwarding this report, after commenting on the magnitude of the surveys in progress, observe that they have no means of testing their thoroughness, and indicate that in their opinion time alone can show whether the work has been adequately done. In Sir Stewart Bayley's opinion it is quite within the power of the Board to render their own control and supervision adequate for all purposes, but if the law or rules are found to be practically deficient in this respect, he will be glad to consider any suggestion which the Board may have to make on the subject. That the work and responsibility falling on the Director in the supervision of these numerous settlements is very onerous, admits of no more doubt, than does the ability and industry which he brings to bear on the work, but in the Lieutenant-Governor's opinion it would be well if the Member in charge could find time occasionally to inspect on the spot the work of settlement in some of the larger estates, and by this means keep a close touch with the work of the department.

#### Embankments.

#### 6. Under this head the Board observe—

"In Bankoora an embankment was constructed during the year in the Government estates Pithaipore and Rajarbari, to protect them from the floods of the river Darkessur, at a cost of Rs. 2,060. The Bhagirathi embankment in Moorshedabad was breached during the year at a place called Rampal, 4 miles above Lalitakuri, and the results were serious. The breach was caused by malicious cutting. Much damage was also caused by a breach at Bairamgunge, also the result of deliberate mischief. In Chittagong a sum of Rs. 5,849 was spent on the Kutubdia embankment in turfing the new banks put up last year."

The subject has heretofore been dealt with in the annual revenue reports somewhat cursorily, and the Lieutenant-Governor would be glad if the Board would pay special attention to the matter next year. The question whether existing embankments should be retained, or new works of the kind constructed, is literally of vital importance in many districts, and more especially in Midnapore. The first effect of an embankment made with any judgment is almost invariably good, as it protects crops from destruction and villages from grave inconvenience; but in the course of years other consequences ensue, the embanked river rises in its bed owing to alluvial deposits, while the surrounding country remains, behind the embankment, at the old level, with the result that the normal height of the rising water is eventually above that of the adjacent fields, and the river becomes annually less and less capable of carrying its flood waters. This is a most dangerous position, as not only are floods under such circumstances very destructive if any breach occurs, but the water they bring will not flow off, and the fields remain submerged until, after a lengthened period, they are dried up by the slow action of evaporation. The subject has engaged the anxious attention of Sir Stewart Bayley, and, indeed, few matters are at present more pressing.

#### 7. The Board state that 4,448 acres of land were acquired during the year at a cost of Rs. 17,48,683, and subject to an abatement of Rs. 1,122 a year revenue. The report

#### Land acquisition.

gives other details, but does not deal with such questions as the supervision necessary to check the irritating and expensive delays which often occur in land acquisition proceedings, the difficulties which have arisen in assessing the value of the land taken up, and how these difficulties have been dealt with. The Lieutenant-Governor will be glad if in future reports the Board will pay special attention to these points.

#### 8. The Board observe that, "judging from the year's experience, the Act

#### Working of the Bengal Tenancy Act.

appears to have worked smoothly, and it may be remarked again that the flood of litigation which was foretold as likely to be one of the first results of the passing of the Act has happily not yet occurred." The sale of printed forms of receipt on the part of



Government continues to be large, amounting to Rs. 12,87,625, although private presses issue the forms at cheaper rates and presumably do a much greater business. These figures indicate that much is being done in the direction of silently establishing a record of existing rents where all was previously in confusion. In illustration of the evils which this part of the Act is intended to remedy, the following account may be quoted of one large estate, on which a record of rights is being made at the request of the owner:—

"The Settlement Officer reports that the Rajah's zemindari papers were in such a state of disorder that it has been extremely difficult to ascertain facts. The *jama-wasil-baki* papers, with some exceptions, show the rent of each holding in the village separately, but the ryots alleged that they made lump payments, though the lands comprised in their respective holdings lay scattered in two or more villages, and stated that the Rajah's *gomastas* or collecting agents granted them rent receipts accordingly. In ascertaining the existing rent with a view to the settlement of fair rents, it came to light that while a ryot cultivated no land in a village, a certain amount of rent was entered against his name in the *jama-wasil-baki* papers of that village; and, on the other hand, while a ryot did cultivate a certain area in a particular village, his name did not appear in the *jama-wasil-baki* of that village. The Settlement Officer has in numerous instances found that ryots cultivating land in one village have got their rents entered in another, and the confusion was made the greater by the absence of any record of mutation of holdings, subdivisions of tenancy, or distribution of rent in the Rajah's *sherista*. The result is that in many villages neither the names of ryots nor the amount of their rents, as entered in the zemindari papers, correspond with the entries in the *khatians*. The road cess papers of 1880, which, it was agreed, should be the basis for ascertaining the existing rents, were prepared from these zemindari papers, and consequently are incorrect. It has therefore been a work of time and much labour to ascertain the correct rent payable by each ryot."

As many as 52 applications for settlements on private estates were made during the year, against 40 in 1888-89, and much useful work has been done in the direction of ascertaining and fixing rents. The only part of the Act to which general exception has been taken on the basis of actual experience of its operation is that which enables those transferring tenures to give notice of the transactions to their landlords, paying certain fees through the Courts, and the force of the objection made under this head has been much diminished during the year by the reduction in the number of such notices from 63,372 to 29,898. In dealing with agrarian questions in Chota Nagpore, Orissa and the Sonthal Pergunnahs, which are administered under special laws, the Lieutenant-Governor has had occasion to regret the absence of the powers conferred by the Bengal Tenancy Act in the rest of the Lower Provinces.

9. The thanks of the Lieutenant-Governor are given to the Hon'ble Mr. Halliday for his excellent administration as Member of the Board during the year; to Messrs. Smith, Worsley, Lyall and Grimley, Commissioners, for good revenue work; to Mr. Finucane, Director of the Department of Land Records and Agriculture, for the skill and discretion with which he has supervised very difficult settlement operations; to Mr. Edward Collin, who actually carried out the largest of these settlements. The work of the following Collectors and Deputy Commissioners has received the favourable notice of the Board:—

Mr. W. B. Oldham.	Mr. R. Cornish.	Mr. H. A. D. Phillips.
" A. W. B. Power.	" R. O. Dutt.	" H. Lee.
" A. Forbes.	" F. R. S. Collier.	" J. G. Ritchie.
" A. A. Wace.	" C. B. Marindin.	" F. A. Slack.
" W. Fiddian.	" G. A. Grierson.	" W. C. Macpherson.
" H. G. Cooke.	" L. Haro.	" R. T. Greer.
" C. A. Samuells.	" D. B. Allen.	" E. N. Baker.
" J. A. Bourdillon.	" H. Savage.	Colonel W. L. Samuells.

The names of the other revenue officers commended by the Board will be communicated to the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,  
Secretary to the Govt. of Bengal.

RESOLUTION ON THE GENERAL ADMINISTRATION REPORT  
OF THE PATNA DIVISION FOR THE YEAR 1889-90.

GENERAL DEPARTMENT—MISCELLANEOUS.

*Darjeeling, the 8th November, 1890.*

RESOLUTION.

READ—

The General Administration Report of the Patna Division for the year 1889-90.

This report has been prepared under disadvantageous circumstances, as Mr. Kemble, by whom it is submitted, was not in charge of the division during any part of the period to which it relates; while of the reporting Collectors, Mr. Bourdillon, of Chupra, is the only one who held that office for the greater portion of the year.

2. The Lieutenant-Governor entirely approves of the plan on which the

*Tours.*

tours were conducted. As stated by the Commissioner, the Collectors were constantly moving about, and went out from head-quarters, even in the hot and rainy seasons, when their presence was required in the interior. They all seem to have found more or less that long, continuous rounds of inspection were not possible, as appeals, municipal and excise matters, land revenue and treasury questions, and other duties constantly demanded their attention at the sudder station. Indeed, under existing circumstances it is by no means desirable that Collectors' tours should generally be continuous, or should take the old form of a slow progress in camp. The objections to a system of government by orders from head-quarters without local enquiries or inspection are as strong as ever; but the means by which the necessary communication between a district officer and the inhabitants of the various towns and villages in his jurisdiction should be kept up must vary with the altered conditions of the present day. Among subdivisional officers, Mr. Mackertich, of Sasseram, was only 80 days on tour, Baboo Radha Madhub Bose, of Bhabuah, only 70 days, the explanation given in the former case being heavy current work, in the latter sickness. The Lieutenant-Governor will ascertain whether the consent of the District Collector had been obtained to the curtailment of the tours on these grounds. The prescribed period in the case of subdivisional officers having been reduced by recent orders, it is unsatisfactory to find that it is not in every instance observed.

3. The question whether the normal condition of the working classes in

*Material condition of the people.*

Bohar can be considered satisfactory has recently been examined by this Government in a special report, and need not be discussed here. The special circumstances of the year 1889-90 were unfavourable, as prices were high, the harvest of the previous season was bad, and, except in Chumparan, fever was prevalent. Wages are returned as having risen in the district of Durbhunga, and the Commissioner considers that there was an upward tendency elsewhere, though this does not appear in the tabular statements. Indeed, the Commissioner might with advantage test these returns generally, as they do not seem altogether worthy of trust, and the system of entering a daily rate for some districts, a monthly rate for others, is objectionable: there is always a doubt whether the daily rate refers to men hired for odd jobs, and therefore receiving somewhat more than those in regular employment.

4. Mr. Kemble hardly notices the scarcity which affected a part of the

*Scarcity and relief.*

division or the measures of relief adopted, though these constituted the characteristic features of the year's administration. Almost the only reference to the subject consists in a quotation of the views of Mr. Bourdillon and Mr. Grierson, that the high prices of the season were artificially caused by combination among the mahajans, and an opinion expressed by the latter Collector that a mistake was made in preventing local officers from endeavouring to lower prices by threatening to import rice on behalf of Government. Some local and temporary effect may probably have been produced by such combinations, presumably with the result of lowering prices in the end, just as much as they were raised at

first; but the Lieutenant-Governor cannot believe that the rise in prices through Behar generally was so caused, for it was the natural result of the failure of a portion of the crops, it was spread over the whole country, and it proved permanent. The first impulse of popular opinion is always to attribute the enhanced price of grain to the wickedness of the dealers, particularly where there has been no very marked local deficiency in the harvest; but such views must always be regarded with much suspicion. And it is highly dangerous to influence the market at the commencement of a scarcity by threatening to import grain on the part of Government. Such a proceeding would doubtless lower prices temporarily, as Mr. Grierson says he proved by experience before the issue of Government orders prohibiting all measures of this kind; but by lowering local prices the Collector stops the importation of the grain necessary to supply the deficiency in his district, and the people are thus left with an inadequate supply of food.

5. The outturn of indigo is entered as 55,437 maunds, which is below the average. The opium yield was also deficient. It is not stated how the information given as to the quantity manufactured in the case of sugar, saltpetre, tobacco, paper, blankets, and silk was obtained, and these returns are always of very uncertain value. The statistics of trade, also, must be taken as approximate only, except those relating to Nepal, which were arrived at by actual registration on the frontier. As to these the Commissioner remarks that—

"The increase is most noticeable under the exports, as I find that the quantity of food-grains, pulses, &c., and the number of hides, small skins, and cattle of sorts which left the country this year is nearly double what was reported last year. It is remarkable that, notwithstanding the increase in the export of food-grains, the quantity imported also increased. There is a large decrease in exportation under the table of 'things valued,' due to the absence of an important item of diamonds, valued at Rs. 30,10,000. Silver also fell from Rs. 9,24,866 to Rs. 3,72,000. This of course is a special case. Owing to political changes some of the rich members of society probably found it expedient in the year 1888 to remove their valuables to British India.

"The value of clothing imported into the country fell last year to Rs. 15,47,074 from Rs. 22,43,952. To make up for this there was a large increase under head 'Other things.' One item of imports, 120,000 bricks, entered last year is not found in the returns this year."

6. The year was marked by some increase in cognizable offences, the returns showing 28,383 cases in the calendar year 1889, against 25,575 in 1888. The excess is attributed to the high prices current at the beginning of 1889. The Lieutenant-Governor regrets to find that the Commissioner and Magistrates deprecate the prosecution under section 211, Indian Penal Code, of those who wilfully bring false cases against others, on account of the time which such proceedings occupy, the uncertainty of their result, and on the allegation that the only harm done by most of these false cases is that they give unnecessary trouble to the police. False accusations frequently cause, and are almost always intended to cause, great injury to the persons named or indicated as accused, and no pains requisite for the purpose can be too great to suppress a practice which does so much harm and brings so much discredit upon the administration. It is not, however, necessary to rely wholly upon prosecutions for discountenancing such charges: every improvement in the magistracy and the police which renders investigation more prompt and efficient, or brings superior judgment to bear on the evidence tendered, has its effect in deterring the malicious from the attempt to use the forms of justice as a means for indulging their private malice. False charges will always be most numerous where the authorities are least able to discriminate them from true.

7. The collection of the land revenue, including the rent on Government estates, was not satisfactory, amounting to 93.8 per cent. on the total demand, and the deficiency was greatest in Patna, which is not a district classified as suffering from scarcity during the year. The Lieutenant-Governor hopes that the Commissioner will give his particular attention to the subject. His remark that the system adopted in Sarun of refusing to accept land revenue after the latest day fixed, where default has become habitual, entails hardship "if the towji accounts are not very accurately kept" is not understood. There should not be, and it is believed there is not, any inaccuracy whatever in the towji accounts. On this subject a special

report will be requested. The system of transmitting revenue by postal money-order, Mr. Kemble states, "is increasing in popularity, the sum remitted being Rs. 2,63,269 by 25,832 orders; in the preceding year Rs. 1,45,897 were remitted by 25,832 orders." In regard to the relation between landlord and tenant, the Commissioner reports three disputes, two of which are being settled by the special procedure for survey and record of rights provided in the Bengal Tenancy Act, while the third should, in his opinion, be settled in the same way. He also refers to unfavourable mention of the working of the bhaoli system in Gya. "Looking at all these reports," he observes, "I can find nothing which would justify me in reporting that the relations between landlord and tenant were unsatisfactory. I do not think that we ought to look for less selfishness in a Gya zemindar than we find among the rest of mankind." It is evident that the passing of the Bengal Tenancy Act has not been followed, as was anticipated in some quarters, by the disturbance of the outward quiet which has generally characterised the relations of the various agricultural classes in Behar, and it is doubtless gradually preparing the way for a better system by introducing a record of the amount of rent due in each case, and affording protection to both landlord and tenant. But it has been proposed to make this remedy more speedy and complete in its operation by a general survey and record of rights in the division wherever rents are at present uncertain, as they seem to be nearly everywhere. The proposal was postponed last year on account of the failure of crops, and its adoption in the near future is now under the consideration of Government.

8. In the number of schools and of students there has been some increase, and female schools in particular have multiplied from 203 to 236, and their students from 3,569 to

3,995. The Lieutenant-Governor is also glad to observe that more Mahomedan boys are now under instruction. In Sarun Mahomedan students have almost doubled during the last nine years.

District and Local Boards, Municipalities, and Zemindars.

9. Mr. Kemble reports well regarding all the District Boards in his division. He writes:—

"The members take an intelligent interest in whatever subjects are laid before them at meetings, and in some districts, especially Sarun and Durbhunga, have worked well on sub-committees—auditing accounts, preparing bye-laws, supervising the plans and estimates of the District Engineer, and in looking after the schools. I may apply the words of Mr. Bourdillon to all the districts, and state that the functions of the Boards in their corporate capacity are merely confirmatory, consultative and legislative, and in discharging those duties and serving on sub-committees they render the district officer much help. More than this cannot be expected of them. In no district, however, do they take any very active part in executive matters, which are, as a rule, left to the Chairman and District Engineer. Where Europeans are numerous, however, much assistance is rendered in keeping up the roads.

"Though the District Boards cannot be pronounced a great success, they are not a failure. As time goes on, it is to be hoped that they will not leave executive matters so much to their Chairman, and that they will exercise more and more real control over the expenditure of the funds entrusted to them.

"The example set by some of the indigo-planters is sure to work good.

"The Durbhunga Board seems to have been doing some good work. The remark made about one Board in the division, that it should be happy because it has no history, applies generally to the others."

In Chupra, with Mr. Bourdillon as Chairman, much progress has been made in the direction of efficient municipal management, but the account given of the working of municipalities in the division generally is not favourable indicating, as it does, that party spirit has in some instances been carried to an extent inconsistent with efficient administration, if not with the maintenance of the public peace. The Commissioner's remarks on this head will be further considered in the Municipal Department of this Government.

10. The Lieutenant-Governor notices with satisfaction the Commissioner's reference to the good work done by the Planters Association in settling quarrels between the planters and their ryots. The existence of this Association is a source of safety to the peace of the district, and is of material assistance to the Government.

11. Sir Stuart Bayley has to acknowledge the justice of the complaint made by the Commissioner of Patna in common with most other Commissioners as

to the inadequacy of the staff to cope with the increasing work of the districts. He trusts that when the next provincial contract is settled it will be found possible to remedy to some extent the unquestioned dearth of officers.

12. The thanks of this Government are given to Mr. Boxwell for his administration of the division during the year, and in particular for the energy with which, assisted for a time by Mr. Henry, he discharged the onerous duties imposed on him by the distress in North Behar. In Mr. Beadon the Government has lost a most zealous and devoted officer, whose premature death is deeply regretted by the Lieutenant-Governor. The Collectors generally, including several who officiated for short periods only, did so well that it is almost invidious to select any for special mention, but the names of Mr. Quinn, Mr. Grierson, Mr. Power, and Mr. Bourdillon cannot be altogether passed over. The remarks of the Commissioner under this head will be communicated to the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

*Secretary to the Govt. of Bengal.*

RESOLUTION ON THE ADMINISTRATION REPORT OF THE  
COMMISSIONERS OF THE PORT OF CALCUTTA  
FOR THE YEAR 1889-90.

No. 198T—Marine.

GOVERNMENT OF BENGAL, MARINE DEPARTMENT.

RESOLUTION.

Dated Darjeeling, the 31st October 1890.

READ—

The Administration Report of the Commissioners of the Port of Calcutta for the year 1889-90.

THE Administration Report of the Commissioners for the year which ended on the 31st of March last was not received by the Government until the 17th of this month. The Lieutenant-Governor hopes that in future years the Commissioners will be able to arrange for the more punctual submission of this report.

2. Excluding the advances made to the Commissioners by the Government in respect of the Kidderpore Dock Works, the gross debt of the Commissioners on the 31st of March 1890 amounted to Rs. 1,20,36,401, distributed as follows:—

						Rs.
Consolidated debt due to the Government	...	...	...	...	...	42,71,401
Port debt not repayable	...	...	...	...	...	17,65,000
4½ per cent. debenture loan of 1881	...	...	...	...	...	10,00,000
4½ ditto ditto of 1883	...	...	...	...	...	20,00,000
5½ ditto ditto of 1886	...	...	...	...	...	30,00,000
Total	...	...	...	...	...	1,20,36,401

The debt to Government was reduced during the year by Rs. 1,29,534, and for the repayment of the debenture loans a sum of Rs. 1,24,000 was set aside, making the total amount at credit of the sinking fund account on the 31st of March 1890 Rs. 6,51,000.

3. The cost of the works constructed or acquired by the Commissioners and the sources from which the expenditure has been met, are shown in the sub-joined table:—

Cost of works constructed or acquired by the Commissioners.

Sources from which the expenditure has been met.

	Rs.		Rs.
Expenditure on jetties and appliances for sea-going vessels to the end of March 1890	53,42,943	By loan from Government (repayable)	60,25,100
Expenditure on inland vessels' wharves, landing stages, tramway, &c., on the Calcutta bank of the river	61,89,543	By loan from Government (not repayable)	17,65,000
Expenditure on inland vessels' wharves, landing-stages, tramway, &c., on the Howrah bank of the river	16,20,606	By loan on 4½ per cent. debentures of 1881	10,00,000
Expenditure on dock for docking and repairing vessels, &c.	6,25,484	By loan on 4½ per cent. debentures of 1883	20,00,000
Expenditure on moorings, anchor vessels, Harbour Master's boats, light ships, survey vessels, &c.	38,21,221	By loan on 5½ per cent. debentures of 1886	30,00,000
Jetties Reserve Fund	99,244	Contribution from Government towards purchase of land for new river-side road	74,534
Jetty Insurance Fund	50,000	Contribution from Government for landing-stage at Princep's Ghat	10,000
Port Reserve Fund	3,64,250	Contribution from Government for Port approaches block	7,19,200
Port Depreciation Fund	1,99,995	From sale of surplus land	4,08,267
Port Approaches Depreciation Fund	60,000	From revenue derived from works since formation of Trust	69,11,132
Debenture Loan Sinking Fund	6,51,000		
Total	2,19,14,385	Total	2,19,14,385



4. On the 31st of March 1890 the advances received from the Government on account of the Kidderpore Dock Works amounted to Rs. 1,73,39,038. On the same date the expenditure on these works had reached Rs. 1,70,05,321. Towards the close of the year the Government received from the Commissioners a revised estimate of the cost of constructing the Tidal Basin and Dock No. 1. This estimate amounted to Rs. 2,53,38,737, and it has been raised by the Government of India to Rs. 2,64,01,005 on the assumption that the Docks will not be completed and earning revenue until the commencement of 1892-93. The accidents which have recently happened on the works will necessitate additional expenditure, but the Lieutenant-Governor hopes that the Docks will be completed before the end of next year, and that the total expenditure will not exceed the estimate as revised by the Government of India.

5. In February last the Government appointed a Committee to consider and advise on the arrangements to be adopted for the working of goods traffic into and out of Calcutta after the completion of the Kidderpore Docks. Owing, however, to the inability of the Commissioners to furnish information asked for by the Committee, the enquiry could not be completed. On receipt of the Committee's preliminary report, the Commissioners were called on, in a letter dated the 1st of May last, to furnish the Government with an estimate—

- (a) of the annual charges which will have to be met by the Port Trust after the completion of the docks; and
- (b) of the revenue that will be obtained in respect of the several services which the Trust will perform after the completion of the Docks, and from any other sources.

This estimate has not yet been submitted. When it is received, the Committee will be asked to resume its deliberations.

6. The year 1889-90 opened with a balance of Rs. 2,86,308. The receipts during the year amounted to Rs. 26,82,730. The expenditure of the year amounted to Rs. 25,90,391, including Rs. 2,24,689 credited to the sinking funds and Rs. 96,276 spent on new works. The year closed with a credit balance of Rs. 3,78,647.

7. The receipts on capital account during the year amounted to Rs. 1,89,000, including an opening balance of Rs. 14,883 and the sum of Rs. 96,276 contributed from revenue, the balance having been taken from depreciation funds. The expenditure amounted to Rs. 1,83,302, leaving a closing balance of Rs. 5,698.

8. Materials and stores to the value of £27,826-9-6 were procured by the Commissioners from England during the year through their Agent in London, and contracts to the value of Rs. 1,72,743-12-9 were made locally for materials and works. The Lieutenant-Governor observes that flooring stones, estimated to cost about Rs. 2,40,000, are being obtained from the British India Steam Navigation Company, but that no formal contract has been made, as the stores are supplied according to indents received from time to time. His Honour is of opinion that this arrangement should have been embodied in a formal contract and submitted for the sanction of the Government.

9. The receipts at the jetties amounted to Rs. 11,73,907, being Rs. 33,977 over those of the previous year; but the increase of revenue was derived entirely from the petroleum wharf, where the receipts amounted to Rs. 1,58,940. There was a considerable falling off in the receipts from exports, which were less than those realized in any year since 1881-82. The jetties were not worked at their full power. In 1887-88 the number of vessels berthed was 232, and the average length of their stay at the jetties was 9.9 days. Last year only 203 vessels were berthed, and they occupied the jetties on an average for 10 days each.

10. The imports of petroleum have increased. Last year 3,726,670 cases were imported as compared with 2,380,652 cases in the previous year. The Batoum oil, of which 534,880 cases were imported in 1888-89, does not appear to have found favour with consumers. Some of this oil which was imported in January 1889 still remained at the dépôt on the 31st of March 1890. There were no imports of Batoum oil in 1889-90.

11. At the close of the year the extension of the Eastern Bengal State Railway to Budge-Budge was completed. The construction of this line was undertaken by the Government on representations made by the Commissioners and the Bengal Chamber of Commerce of the danger to which the shipping in

the port was exposed by the transport of petroleum by water from the depôt at Budge-Budge to the Calcutta and Howrah wharves. After the opening of the railway for traffic, the Commissioners, however, advised that it was unnecessary to place any restrictions on the transport of petroleum by water within the limits of the port. The Lieutenant-Governor is unable to reconcile the views now held by the Commissioners with those put forward by them and the Bengal Chamber of Commerce when they advocated the construction of the line or with the experience of the past, and the question of placing restrictions on the transport of petroleum by water is still under consideration. The Petroleum Act, 1886, and the rules made under it have come into force since the close of the year.

12. The total quantity of tea brought into Calcutta during the year was 101 million pounds, of which 30 million pounds passed through the tea warehouse built by the Commissioners. The receipts from the warehouse amounted to Rs. 76,455, including a sum of Rs. 17,542 which was realized by letting out the ground-floor for storing piece-goods and grain. The improvement in the receipts is satisfactory, but the tea warehouse, which, excluding the value of the site on which it stands, cost Rs. 8,51,010, has not yet become a financial success.

13. In the Harbour Master's Department, although the number of vessels which came to the port was less than in the previous year, the receipts from mooring hire show an increase of Rs. 17,931. This increase is due to the fact that many sailing vessels made long stays in port with the object of getting better freights. The Commissioners' steam-vessels earned Rs. 13,214 by towing vessels within the limits of the port.

14. There were nine accidents to vessels in charge of Assistant Harbour Masters, for seven of which the officers concerned were more or less to blame. None of the accidents caused very serious damage, and the result of the year's working compares favourably with that of the previous year.

15. Since the close of the year, special rules for the port of Calcutta have been made under the Explosives Act, 1884.

16. The total number of surveys made by the Engineer and Shipwright-Surveyor, including surveys of vessels belonging to the Commissioners, was 254, of which 229 were surveys of vessels and 25 of boilers and condensers on emigrant vessels. The fees levied in respect of these surveys did not cover the expenses incurred in making them. Since the close of the year the Commissioners have been relieved of the duties connected with the survey of vessels under the several Acts relating to merchant shipping, and a revised scale of fees has been adopted which is calculated to cover the expenses of making the surveys.

17. During the year 5,886 cargo boats and 1,582 passenger boats were surveyed and licensed, the total amount realized being Rs. 29,731, including Rs. 6,957 from fines for breaches of port rules. The expense of surveying these boats was under Rs. 10,000; but when, in 1879, the duty of licensing them was transferred to the Commissioners, it was arranged, with the approval of the Government, that the fees charged would be fixed so as to bring in a sum sufficient to carry on the work efficiently and to contribute the sum of Rs. 12,000 a year towards the maintenance of the river police force. The receipts now afford a margin over and above this contribution; but, in view of the changes that may result on the opening of the Kidderpore Docks, the margin is not so large as to call for any reduction in the fees at present.

18. The receipts from the tramways amounted to Rs. 3,02,022 against Rs. 3,26,697 in the previous year, showing a falling off of Rs. 24,675. On the other hand there was an increase of Rs. 5,846 in expenditure, which amounted to Rs. 1,99,442 against Rs. 1,93,596 in the previous year. After providing Rs. 50,354 for interest on the capital expenditure incurred on the tramway, the net revenue derived by the Commissioners from this source amounted to Rs. 1,02,580 against Rs. 1,33,101 in the previous year. The falling off in the gross receipts was due to the decline in the export of grain and pulses.

19. Towards the close of the year it was brought to the notice of the Government that the charges levied by the Commissioners for the carriage of goods on their tramways were not, as required by the "Calcutta Port Improvement Act, 1870," in accordance with a scale approved by the Lieutenant-Governor. After some correspondence with the Commissioners, they were, in a letter dated the 30th of June last, furnished with the views of the Government

of India and requested to frame and submit, in accordance with the provisions of the Calcutta Port Act, 1890," for the approval of the Lieutenant-Governor, a scale of all the charges to be made for the conveyance of goods by their tramway, due regard being had, in framing the scale, to the provisions of the Indian Railways Act, 1890. The Government has not yet received this scale from the Commissioners. The Government of India has expressed the opinion that there are grave objections to higher maximum rates being levied on the Port Commissioners' tramway for through traffic than have been fixed for commercial railways generally. The charges now levied, giving as they do a large surplus revenue, are very high, and they will have to be reduced in accordance with the principles laid down by the Government of India.

20. The expenditure of the year on surveying, buoying, and lighting the approaches to the port amounted to Rs. 4,98,424. The average annual expenditure on the port approaches during the past five years has been Rs. 4,93,558. The port approaches department has no income of its own, and the expenditure of the past year was met from the following sources:—

			Rs.
Contribution from jetties	...	...	2,70,000
Ditto inland vessels' wharves	...	...	25,000
Ditto strand bank lands	...	...	60,000
Ditto Harbour Master's department	...	...	50,000
Ditto tramway	...	...	75,000
Total	...	...	4,85,000

With the opening of the Kidderpore Docks it will be impossible to continue to make some of these contributions, and the question of how the expenditure on the port approaches should be met will receive further consideration when the estimate referred to in paragraph 5 of this Resolution is received from the Commissioners.

21. No changes of any great importance occurred in the river channels during the year. The establishment maintained for the survey of the river carried out its duties efficiently.

22. All the light-houses and light-vessels on the coast of Bengal were inspected towards the close of the year by the Engineer appointed by the Government of India to inspect and report on all Indian light-houses. The Engineer's report has recently been received and is now under the consideration of the Government. The lights of the approaches to the port of Calcutta require some small alterations, but are generally efficient. Mr. Douglass recommends that a light-house should be erected on the coast below False Point at the mouth of the Davy river. The advisability of having a light in this position had already engaged the attention of the Lieutenant-Governor, and the question will now be again considered.

23. The Calcutta Port Act, 1890, consolidating the several Acts relating to the Port Trust, came into force on the 1st day of June 1890. Under it the Commission is composed of a Chairman, Vice-Chairman, and five Commissioners who are appointed by the Government, five Commissioners elected by the Bengal Chamber of Commerce, one by the Calcutta Trades' Association, one by the Commissioners of the Town of Calcutta, and one by such body as the Government may select as best representing the interests of the native mercantile community. The Bengal National Chamber of Commerce has been recognised as the body best representing those interests.

24. During the year the Commissioners submitted, at the request of the Government, a draft of revised port rules under the Indian Ports Act, 1890. A legal difficulty has arisen affecting some of the most important of the rules, and they are still under consideration.

25. The thanks of the Government are due to the Commissioners for their successful management of the affairs of the Trust during the year. The Commissioners have, as in former years, had at their disposal ample resources, and while the charges made are in some cases high, the facilities which they have provided have met most of the wants of the trade of the port. With the opening of the Kidderpore Docks those facilities will be largely increased, but at the same time the charges which the Trust will have to meet will be

enhanced in a corresponding degree. The construction of the Kidderpore Docks was sanctioned on the recommendations made by a Joint Committee of the Port Commissioners and the Bengal Chamber of Commerce in 1883. At that time the trade of Calcutta had shown signs of rapid expansion, and the majority of the mercantile community urged on the Government the advisability of permitting the Port Commissioners to carry out their proposals for providing increased facilities for the shipping. The subjoined table of the departures of sea-going vessels from Calcutta during the past 11 years shows that the expansion has not been so rapid as had been anticipated, and that during the past two years there has been a slight falling off:—

*Statement showing the number of sea-going vessels that left the Port in 1889-90 compared with similar returns for the previous 10 years.*

YEAR.	DEPARTURES.								
	Number.			Gross tonnage.			Net tonnage.		
	Steamers.	Sailing vessels.	Total.	Steamers.	Sailing vessels.	Total.	Steamers.	Sailing vessels.	Total.
1879-80 ...	434	460	895	845,016	575,425	1,420,441	548,659	560,058	1,108,717
1880-81 ...	510	505	1,015	1,014,483	616,788	1,631,271	669,850	598,860	1,268,710
1881-82 ...	597	461	1,058	1,232,461	541,623	1,774,084	822,072	525,525	1,347,597
1882-83 ...	619	522	1,141	1,345,105	634,002	1,979,107	889,142	615,316	1,504,456
1883-84 ...	604	469	1,073	1,379,295	580,531	1,959,826	908,989	562,311	1,471,300
1884-85 ...	528	305	833	1,230,284	514,987	1,745,271	802,839	497,919	1,300,758
1885-86 ...	582	387	969	1,351,059	520,877	1,871,936	883,152	503,545	1,386,697
1886-87 ...	647	415	1,062	1,518,238	597,099	2,115,337	986,359	575,796	1,562,155
1887-88 ...	700	361	1,061	1,710,435	534,160	2,244,595	1,118,955	515,622	1,634,577
1888-89 ...	722	312	1,034	1,769,733	470,711	2,240,444	1,154,028	454,628	1,608,656
1889-90 ...	728	290	1,018	1,762,119	440,700	2,202,819	1,144,692	426,084	1,570,776

The Lieutenant-Governor hopes and believes that the check which the trade of the port of Calcutta has sustained is only temporary, but the present conditions require that rigid economy should be observed in administering the affairs of the port, and that the burdens should be distributed in an equitable manner, so that every branch of trade may have the opportunity of expanding without being subjected to restrictions of an artificial kind.

By order of the Lieutenant-Governor of Bengal,

J. M. McNEILE, Col., R.E.,  
Secretary to the Government of Bengal.

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 8th November 1890.

No.	District and date of report.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
Western Districts.			
BURDWAN DIV.	1 Burdwan Nov. 8, '90	0.66	Weather—seasonable. Prospects of crops good. Fields are being prepared for <i>rabbi</i> crops. Prices of common rice:— <div style="float: right; text-align: right;">Rs. Burdwan ... 16½ Culna ... 15 Cutwa ... 15 Ranigunge ... 17 } per rupee.</div>
	Culna ...	0.20	
	Cutwa ...	0.80	
	Ranigunge ...	...	
	Ranigunge ...	...	
	2 Bankura .. 8, '90	Nil	Weather—fair, but occasionally cloudy; mornings and evenings cool. Prospects of <i>amra</i> rice continue good. Ploughing for <i>rabbi</i> proceeding. Common rice selling at 20 seers per rupee both at Sudder and Bissenpore.
	3 Birbhum .. 8, '90	0.10	Weather—seasonable with occasionally cloudy weather. Crops in excellent condition. Price of rice 18½ to 19 seers per rupee.
	Rampore Haat ...	0.20	
	4 Midnapur .. 8, '90	Nil	Weather—cloudy and variable; very warm at noon. Paddy crop doing well. Lands being got ready for <i>rabbi</i> crops. In Contai prospects fair except in places submerged. Prices of common rice:— <div style="float: right; text-align: right;">Rs. Sudder ... 15 Tumlook ... 17½ Ghatal ... 16 Contai ... 18 } per rupee.</div>
	5 Horigata .. 8, '90	Nil	Cold weather setting in. Prospects of <i>amra</i> continue good. Potatoes and <i>kakai</i> are being sown. Prices of common rice:— <div style="float: right; text-align: right;">Rs. Sudder ... 14 Serampore ... 14 Behanabad ... 16½ } per rupee.</div>
6 Nowrah .. 8, '90	Nil	Weather—seasonable. <i>Amra</i> crop doing well. Prospects of harvest satisfactory. Price of coarse rice 14 seers per rupee.	
FARRUKH DIV.	7 24 Pargan. Nov. 8, '90	0.05	Weather—seasonable. Prospects of crops good. Yield of <i>amra</i> rice estimated at 18 annas. Ploughing for winter crops going on. Common rice selling at from 13 to 15 seers per rupee. Medical relief being given to the people in the flooded tract.
	8 Nuddea .. 8, '90	0.20	Weather—seasonable. Prospects of crops fair. Sowing of winter crops going on. Price of rice continues much the same.
	9 Khosha .. 8, '90	Nil	Weather—seasonable. Prospects of the <i>amra</i> crop continue favourable except in the flooded area. Lands are being prepared and winter crops are being sown.
	Bakhira ...	0.48	
	10 Jessore .. 8, '90	Nil	Weather—seasonable. Prospects of <i>amra</i> good. Sowing of winter crops going on.
	11 Mootshahabad .. 8, '90	Nil	Weather—seasonable. <i>Haimanti</i> rice in ear. <i>Rabbi</i> crops being sown. Prospects favourable.
	12 Dinagapur .. 8, '90	Nil	Weather—seasonable. Prospects of crops continue good. Price of rice unchanged.
	13 Hajshabye .. 8, '90	0.95	Weather—fair. Sticking and gathering of jute almost finished. <i>Gauja</i> crop thriving. Sugarcane and winter paddy doing well. Lands being prepared for <i>rabbi</i> crops. Some transplanted winter paddy on low lands suffered in the subdivision of Nowgong.
	Nattore ...	1.62	
	Nowgong ...	0.30	
14 Hungpur ...	...	Report not received.	
RAJSHAH DIV.	15 Bura .. 8, '90	0.68	Weather—seasonable. Rain fell on the 1st instant. All crops promise well, and preparations for the spring crops are going on. Common rice is selling at 18 seers a rupee.
	Sherpur ...	0.59	
	Nowkhilla ...	0.27	
	16 Pubna .. 8, '90	Nil	Weather—fine and cool. Prospects of standing crops good. Prices of food-grains remain stationary.
	17 Darjeeling .. 8, '90	Nil	Weather—fine. Prospects good. Winter rice and <i>meras</i> doing well in the hills.
18 Jalpigoree .. 8, '90	Nil	Weather—seasonable. Sticking of jute nearly completed. Prospects of crops continue good. Price of rice remains stationary.	

No.	District and date of return.	Rainfall at reader station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divn.	18 Dacca Nov. 8, '90	Nil	Weather—bright, and cool at night. <i>Amra</i> paddy being harvested. <i>Amra</i> paddy doing well. Cultivation going on for winter crops. Common rice sold at from 13½ to 16 seers per rupee.
	19 Furreedpur „ 8, '90	Nil	Weather—seasonable. Prospects of <i>amra</i> paddy fair. <i>Rabbi</i> crops are being sown. Common rice selling at 14 seers per rupee.
	20 Backergunge „ 8, '90	Nil	Weather—seasonable. State and prospects of crops good. Common rice selling at about 13 seers per rupee.
	21 Mymensingh „ 8, '90	0.05	Weather—seasonable; days still somewhat warm, but nights cool. Prospects of <i>amra</i> continue good. Jute nearly harvested. Common rice sells at 13 seers per rupee.
Chittagong Divn.	22 Chittagong „ 11, '90	0.05	Weather—seasonable. Prospects of <i>amra</i> crop favourable. Prices stationary.
	23 Noakhally „ 8, '90	Nil	Weather—seasonable. <i>Amra</i> crop maturing. Prospects good. <i>Rabbi</i> crops being sown. Price of rice stationary.
	24 Tipperah „ 8, '90	Nil	Weather—cool and sun shining. <i>Amra</i> prospering. Mustard and other winter crops are being sown. Prices stationary.
	25 Chittagong Hill Tracts „ 6, '90	0.3	Weather—seasonable. Harvesting of <i>jum</i> paddy nearly complete. Cotton in pods; gathering commenced. Plough-paddy in flower. Lands being ploughed for mustard. Common rice being sold at 11 seers 6½ chittacks per rupee.
Hill Tipperah		...	Report not received.
RCHAB.			
PATA Divn.	26 Patna Nov. 8, '90	Nil	Weather—hot in the day and cool at night. Prospects of paddy continue good. Sowing of <i>rabbi</i> crops in progress. Pea, gram and all other <i>rabbi</i> crops already sown have germinated well. Prices of food-grains falling to some extent.
	27 Gaya „ 8, '90	Nil	Weather—days clear and nights cold. <i>Katiki</i> and <i>barhami</i> paddy being harvested in places. Sowings of <i>rabbi</i> and poppy in progress throughout the district. Prospects favourable. Prices falling.
	28 Muzaffarpur „ 8, '90	Nil	Weather—cool and clear. Prospects of all crops continue favourable.
	29 Darbhanga „ 8, '90	Nil	Weather—getting cool. Rice crop in ear and doing well. Sowing of <i>rabbi</i> crops progressing. <i>Kahar</i> and tobacco look promising. Price of common rice falling.
	30 Monahpur „ 8, '90	Nil	Weather—seasonable. Rice doing very well. Ploughing for and sowing of <i>rabbi</i> crops proceeding everywhere. These crops which have already germinated are looking very healthy. Poppy is also being sown.
	31 Saran „ 8, '90	Nil	Weather—fine and clear. West winds. Heavy dews at night. Rice, where there is any, very fine. <i>Rabbi</i> prospects very good. Linseed sowings normal.
	32 Champarn „ 8, '90	Nil	Weather—seasonable. <i>Rabbi</i> sowings have commenced. Paddy in ear and doing well. Poppy sowings being commenced, and about 1½ annas estimated as having been sown. The crop promises to be somewhat late on account of the excess moisture.
BHAUGUR Divn.	33 Monghyr „ 8, '90	Nil	Weather—seasonable. <i>Rabbi</i> sowings in progress. Winter rice doing well.
	34 Bhagalpur „ 8, '90	Nil	Weather—clear; mornings and evenings with heavy dew. Winter rice doing well. Cultivation for <i>rabbi</i> crops progressing.
	35 Patna „ 8, '90	Nil	Weather—fine with cold nights. Prospects favourable. Preparation for <i>rabbi</i> crops going on. <i>Katiki</i> and other crops sown doing well.
	36 Malda „ 8, '90	0.08 0.12	Weather—seasonable. Prospects of winter rice crop favourable. <i>Katiki</i> thriving and in some places flowering. Sowing of other <i>rabbi</i> crops in progress, and those already sown have germinated well. Locusts have visited the district in great numbers. Price of rice stationary.
	37 Bonthal Pergna „ 8, '90	0.11	Weather—seasonably cool. Prospects of rice crop excellent. <i>Rabbi</i> sowings still going on. Harvesting of early rice commenced, and the output is more than average.



No.	District and date of return.	Rainfall at Sadler Station in inches.	Character of the weather and state and prospects of the crops.
<b>ORISSA.</b>			
Orissa Div.	38 Cuttack Nov. 8, '90	1.79	Weather—seasonable. Rain has somewhat damaged the rabbi crop in the Sadler subdivision, especially in Banki. General prospects good.
	39 Poores „ 8, '90	2.56	Weather—cloudy. <i>Lagus soras</i> (early winter rice) is being harvested. <i>Bura soras</i> (late winter rice) coming into ear. <i>Kaisi</i> and <i>orkha</i> have suffered to some extent from the late rain. Price of common rice from 21 to 22 seers per rupee.
	Kheorda „ „	1.48	
	Banpur „ „	2.72	
40 Balasore „ 8, '90		2.25	Weather—seasonable. Early winter rice crop is being harvested.
<b>CHOTA NAGPORE.</b>			
<i>South-West Frontier Agency.</i>			
Chota Nagpur Div.	41 Hazaribagh Nov. 8, '90	NH	Weather—seasonable. Sky cloudy throughout the week. Reports from all parts of the district very favourable.
	42 Lohardugga „ 8, '90	NH	Weather—cloudy. Rabbi being sown here and there, but rain wanted. Harvesting of winter rice commenced. Some damage reported to have been caused to this crop by locusts. No material change in prices.
	43 Singhbhum „ 8, '90	NH	Weather—seasonable; cloudy. Crops everywhere satisfactory.
	44 Manbhum „ 8, '90	NH	Weather—cloudy in the morning, warm in the daytime. Reaping of upland paddy has commenced. All other crops doing well.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 11th November, 1890.P. NOLAN,  
Secy. to the Govt. of Bengal.

## STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

STOCK IS SHOWN AS COMPARED ON—

NAMES OF MARKS.	1st week of Nov. 1889.	1st week of Dec. 1889.	1st week of Jan. 1890.	1st week of Feb. 1890.	1st week of Mar. 1890.	1st week of April 1890.	1st week of May 1890.	1st week of June 1890.	1st week of July 1890.	1st week of August 1890.	1st week of Sept. 1890.	1st week of Oct. 1890.	1st week of Nov. 1890.
Bellabhatte " " "	Meda. 5,54,000	Meda. 2,04,000	Meda. 2,00,000	Meda. 5,46,000	Meda. 9,51,000	Meda. 15,34,000	Meda. 10,04,000	Meda. 9,08,000	Meda. 7,44,000	Meda. 6,42,000	Meda. 5,41,000	Meda. 4,20,000	Meda. 3,52,000
Chakdanga " " "	Meda. 67,000	Meda. 55,000	Meda. 53,000	Meda. 83,000	Meda. 1,02,000	Meda. 1,11,000	Meda. 84,000	Meda. 84,700	Meda. 74,000	Meda. 87,000	Meda. 75,000	Meda. 88,000	Meda. 79,000
Chinnore, Golabara, Coomer- looly, Hathohy and Ouliy Ghat.	Meda. 4,83,300	Meda. 1,98,000	Meda. 4,00,000	Meda. 4,30,000	Meda. 1,32,000	Meda. 8,57,000	Meda. 4,57,000	Meda. 4,78,000	Meda. 4,06,000	Meda. 5,10,000	Meda. 5,07,000	Meda. 5,45,000	Meda. 5,18,700
Pathurachalia, Pasha, and Jorabagan.	Meda. 3,000	Meda. 2,000	Meda. 4,000	Meda. 5,000	Meda. 4,000	Meda. 3,000	Meda. 4,000	Meda. 3,500	Meda. 4,000	Meda. 3,000	Meda. 3,000	Meda. 3,000	Meda. 4,700
Tullurine, Chikish, Kildarpore, and Mooraburige.	Meda. 85,000	Meda. 84,100	Meda. 82,750	Meda. 98,100	Meda. 1,21,000	Meda. 1,36,000	Meda. 1,32,000	Meda. 1,18,000	Meda. 2,04,700	Meda. 30,000	Meda. 94,000	Meda. 1,03,000	Meda. 1,12,700
El Minor Basare (estimated) "	Meda. 2,00,000	Meda. 2,04,000	Meda. 4,10,000	Meda. 2,50,000	Meda. 2,00,000	Meda. 4,00,000	Meda. 2,00,000	Meda. 2,45,000	Meda. 2,40,000	Meda. 2,40,000	Meda. 2,40,000	Meda. 2,40,000	Meda. 2,40,000
Other retail shops, 1,120 in number (estimated).	Meda. 1,25,000	Meda. 2,00,000	Meda. 2,00,000	Meda. 4,50,000	Meda. 2,00,000	Meda. 2,00,000	Meda. 2,00,000	Meda. 2,00,000	Meda. 2,50,000	Meda. 2,50,000	Meda. 2,50,000	Meda. 2,50,000	Meda. 2,50,000
Beldyabaty, Kowabangura, Baidyabaty, and Chander- nagore.	Meda. 15,000	Meda. 16,000	Meda. 20,000	Meda. 10,000	Meda. 20,000	Meda. 31,000	Meda. 10,000	Meda. 25,700	Meda. 45,000	Meda. 55,000	Meda. 45,000	Meda. 47,000	Meda. 50,000
Total	Meda. 17,81,310	Meda. 15,13,000	Meda. 15,05,975	Meda. 16,45,000	Meda. 22,56,000	Meda. 28,77,000	Meda. 26,54,000	Meda. 21,06,110	Meda. 10,00,000	Meda. 18,00,107	Meda. 28,55,000	Meda. 37,07,125	Meda. 27,02,012
On Railway premises on both sides of the river.	Meda. 14,011	Meda. 6,077	Meda. 28,097	Meda. 50,000	Meda. 47,000	Meda. 54,000	Meda. 54,000	Meda. 11,927	Meda. 13,553	Meda. 2,571	Meda. 12,554	Meda. 11,755	Meda. 10,540
On boats— founded "	Meda. 14,011	Meda. 6,077	Meda. 28,097	Meda. 50,000	Meda. 47,000	Meda. 54,000	Meda. 54,000	Meda. 11,927	Meda. 13,553	Meda. 2,571	Meda. 12,554	Meda. 11,755	Meda. 10,540
Grand total of Stocks	Meda. 17,81,310	Meda. 15,13,000	Meda. 15,05,975	Meda. 16,45,000	Meda. 22,56,000	Meda. 28,77,000	Meda. 26,54,000	Meda. 21,06,110	Meda. 10,00,000	Meda. 18,00,107	Meda. 28,55,000	Meda. 37,07,125	Meda. 27,02,012
Probable stock available for exportation by sea.	Meda. 78 lakhs	Meda. 4 lakhs	Meda. 78 lakhs	Meda. 111 lakhs	Meda. 104 lakhs	Meda. 104 lakhs	Meda. 104 lakhs	Meda. 12 lakhs	Meda. 99 lakhs	Meda. 9 lakhs	Meda. 84 lakhs	Meda. 71 lakhs	Meda. 78 lakhs

STATISTICAL DEPARTMENT,  
The 8th November, 1890.P. NOLAN,  
Secy. to the Govt. of Bengal.

## PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
BENGOAL.																			
Western Districts.																			
1	Burdwan	14 0	13 0	13 4	...	...	...	12 6	12 6	11 10	16 9	16 9	14 10	...	...	...	...	...	...
2	Bankura	14 0	15 0	13 8	18 0	20 0	14 8	17 0	15 0	15 0	19 0	18 0	18 0	...	...	...	...	...	...
3	Barrackpore	17 4	17 4	15 0	...	...	...	13 8	13 8	12 0	16 8	15 8	15 0	...	...	...	...	...	...
4	Midnapore	10 8	10 8	13 2	...	...	...	13 0	11 0	12 8	16 12	15 0	14 4	...	...	...	...	...	...
5	Hooghly	13 0	13 0	13 0	...	...	...	8 0	8 0	8 0	13 0	13 0	12 0	...	...	...	...	...	...
6	Howrah	...	...	...	...	...	...	10 0	10 0	9 8	14 0	13 8	12 8	...	...	...	...	...	...
Central Districts.																			
7	Calcutta	13 6	13 4	13 3	17 15	17 11	16 10	8 12	8 14	7 15	13 1	12 11	12 11	...	...	...	...	...	15 1
8	24 Pargannas	14 0	14 6	16 0	20 0	19 0	17 0	8 0	8 0	7 8	15 0	14 0	14 0	...	...	...	...	...	...
9	Nuddas	15 4	15 4	14 14	16 0	...	16 0	11 6	11 10	10 5	12 10	13 10	13 6	...	...	...	...	...	...
10	Rhoolna	...	...	...	...	...	...	12 0	12 0	11 0	14 8	14 4	13 5	...	...	...	...	...	...
11	Jessore	12 0	13 0	12 5	...	...	...	11 0	11 0	9 0	13 0	13 0	12 0	...	...	...	...	...	...
12	Moorsheadabad	16 0	18 0	18 0	...	...	...	10 0	10 0	10 8	16 4	16 0	15 0	...	...	...	...	...	...
13	Dinapore	15 10	15 10	14 8	21 12	14 8	19 0	13 4	14 6	12 0	16 12	16 13	16 12	...	...	...	...	...	...
14	Rajshahye	16 8	16 8	15 0	19 8	19 8	19 8	12 12	12 0	9 12	15 0	13 14	12 12	...	...	...	...	...	...
15	Rangpore	13 5	13 5	13 5	...	...	...	9 8	9 6	10 0	13 5	13 5	12 12	...	...	...	...	...	...
16	Bogra	15 0	13 5	13 8	...	...	...	12 0	9 12	10 8	14 4	14 4	12 12	...	...	...	...	...	...
17	Palma	18 0	18 0	16 8	...	...	...	7 5	7 2	7 3	14 4	14 4	14 4	...	...	...	...	...	...
18	Darjeeling	8 0	9 0	9 0	9 0	10 0	10 0	6 0	5 0	5 0	12 0	12 0	12 0	...	...	...	...	...	...
19	Julpigore*	...	13 0	...	...	16 0	...	...	8 0	7 0	...	15 0	11 8	...	...	...	...	...	...
Eastern Districts.																			
20	Dacca	12 0	12 0	13 0	14 0	14 0	16 0	13 0	13 0	9 12	14 0	14 0	11 0	...	...	...	...	...	...
21	Farrakpore	16 0	16 0	13 0	20 0	20 0	...	10 0	10 0	9 0	15 0	15 0	13 0	...	...	...	...	...	...
22	Backergunge	...	...	...	...	...	...	11 12	11 6	10 4	13 4	13 0	14 0	...	...	...	...	...	...
23	Mymensingh	12 0	10 8	10 0	...	...	...	10 0	10 0	8 12	13 0	11 8	9 8	...	...	...	...	...	...

\* Present return not received.

A In subdivisions retail prices of salt per rupee are:—Calcutta 10 seers, Dacca 10 seers, and Hajierganje 10 seers.

B At Banpuria least retail price of salt 6 seers per rupee.

C In subdivisions retail prices of salt per rupee are:—Contai 8 seers, Tamluk 8 seers, Ghatal and 11 seers.

D In subdivisions retail prices of salt per rupee are:—Saranam 10 seers and Jhalabad 11 seers.

E In subdivisions retail prices of salt per rupee are:—Saranam 10 seers, Barabhat 10 seers, Diamond Harbour (at Magrahat) 10 seers, and Barabhat 10 seers.

F In subdivisions retail prices of salt per rupee are:—Koochla 10 seers, Meherpore 10 seers, Choudanga 10 seers, and Ranghat 9 seers 2 chittaka.

G In subdivisions retail prices of salt per rupee are:—Balkhira 10 seers and Bagirhat 8 seers.

H In subdivisions retail prices of salt per rupee are:—Jhalida 6 seers, Kigera 10 seers, Narail 9 seers, and Bengong 10 seers.

NEPS OF 80 TOLAHHS.

1. **ИЗДАЮЩАЯ ОРГАНИЗАЦИЯ.**  
 2. **Полное наименование:** **Средне-  
 (название)**

MAKING OF K&L  
MAKING OF COCOON

**Present policy.**

Next preceding re-  
turn.

Corresponding re-  
turn of last year.

### Present return

Next proceeding, re-  
turn

Corresponding re-  
turn of last year.

Ch. B. Ch. H. Ch. B. Ch. B. Ch. B. Ch.

814 8 2 11 6

[illegible]



## Head-quarter Station Basars of the Districts of Bengal on the 31st October, 1890.

INDIAN-CORN OR MAIZE (Zea Mays.)			ARHAR OR TUR. CADJAN PEA. (Cajanus indicus.)			FIRWOOD.			SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
BENGAL.															Western Districts.
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rd.	A. P.	Rs. a. p.	
...	...	...	18 8	17 12	18 0	100 0	100 0	100 0	11 2-2	11 2-2	10 5	3 7	6 3	8 0	Burdwan.
22 0	28 0	23 0	18 0	18 0	16 0	280 0	24 0	23 0	10 8	10 0	10 0	3 10	0 3	13 0	Bankoora.
...	...	...	18 8	18 8	10 8	160 0	160 0	160 0	10 8	10 8	10 8	3 10	0 3	10 0	Beerbhoom.
...	...	...	12 0	11 8	12 0	120 0	120 0	160 0	10 8	10 8	10 8	3 18	0 3	13 0	Midnapore.
...	...	...	11 0	11 0	18 0	120 0	120 0	120 0	9 0	9 0	9 0	3 12	0 3	12 0	Hoghly.
...	...	...	12 8	12 8	12 8	100 0	100 0	100 0	10 8	10 8	9 2	3 8	0 3	8 0	Howrah.
Central Districts.															Calcutta.
17 18	19 8	18 0	15 6	15 8	17 12	90 4	92 8	100 0	10 4	10 8	9 12	3 10	5 1	8 8	
...	...	...	14 8	17 0	18 4	100 0	100 0	100 0	10 12	10 12	10 0	3 6	8 3	7 0	24-Pargunnahs.
...	...	...	16 0	16 18	17 12	...	...	...	9 18	9 18	9 2	3 12	0 3	12 0	Nuddea.
...	...	...	...	...	...	16 0	160 0	120 0	8 0	8 0	9 0	4 0	0 4	0 0	Khoolna.
...	...	...	16 0	16 0	16 0	160 0	16 0	160 0	9 2	9 2	9 2	4 0	0 4	0 0	Jessore.
...	...	...	16 0	17 12	16 0	200 0	200 0	220 0	10 12	11 4	11 0	3 12	0 3	8 0	Moorshedabad.
...	...	...	15 10	15 10	16 12	160 0	160 0	160 0	10 0	10 0	9 8	4 0	0 4	0 0	Dinapore.
...	...	...	18 4	17 2	16 8	240 0	24 0	...	9 9	9 9	9 9	3 18	4 4	0 0	Rajshahye.
...	...	...	10 10	10 10	12 4	100 0	100 0	100 0	9 6	9 0	8 14	4 4	0 4	4 0	Rungpore.
...	...	...	...	...	...	90 0	90 0	90 0	9 12	9 0	9 0	4 0	0 4	0 0	Bogra.
...	...	...	17 4	17 10	17 4	20 0	22 0	30 0	8-11-2	8-11-2	8-11-2	3 14	0 3	14 0	Pabna.
20 0	20 0	18 0	10 0	10 0	8 0	120 0	120 0	120 0	8 0	7 8	7 0	5 0	0 5	4 0	Darjeeling.
...	...	...	11 0	8 0	...	20 0	128 0	...	9 0	8 0	...	4 4	0 4	...	Jalpigore.
Eastern Districts.															Dacca.
...	...	...	16 0	16 0	14 0	120 0	120 0	160 0	9 12	9 12	10 0	4 0	0 4	0 0	
16 0	16 0	16 0	10 0	10 0	10 0	120 0	120 0	120 0	10 0	10 0	9 0	3 14	0 3	14 0	Furzedpore.
...	...	...	13 0	12 12	11 8	100 0	100 0	120 0	10 10	10 10	9 18	3 12	0 3	12 0	Backergunge.
...	...	...	10 0	11 0	...	...	...	...	9 8	10 0	9 0	4 2	0 3	15 0	Mymensingh.

H In subdivisions retail prices of salt per rupee are :—Lalbagh 10 seers, Jungipore 10 seers, and Kandi 11 seers.

I In Thakurgaon subdivision retail prices of salt 8 seers per rupee.

J In subdivisions retail prices of salt per rupee are :—Nowgong 9 seers 3 chittacks and Nattore 9 seers.

K In subdivisions retail prices of salt per rupee are :—Kurigram 8 seers, Nilphamari 9 seers, and Gaibandha 8 seers.

L At Sonmuga retail price of salt 10 seers per rupee.

M At Siliguri wholesale price of salt 12 4-4 per maund.

N In subdivisions retail prices of salt per rupee are :—Manickgunge 9 seers, Moonsheegunge 8½ seers, and Narailgunge 10 seers.

O In subdivisions retail prices of salt per rupee are :—Ferozopore 8½ seers, Patanchali 9 seers, and Bhola 8 seers.

P In subdivisions retail prices of salt per rupee are :—Kishorigunge 8 seers, Jamalpore 9 seers, Sherpore 8 seers, and Netpakona 8 seers.



## PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the Head-quarter

		QUANTITIES PER RUPEE IN														
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)		
Number.	DISTRICTS.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
Eastern Districts—concluded.																
		S. Ch.	N. Ch.	S. Ch.	N. Ch.	S. Ch.	N. Ch.	S. Ch.	N. Ch.	S. Ch.	N. Ch.	S. Ch.	N. Ch.	S. Ch.	N. Ch.	S. Ch.
22	Chittagong	11 0	11 0	10 0	...	...	...	12 0	12 0	8 0	15 12	15 12	14 0	...	...	...
23	Noakholly	...	...	...	...	...	...	14 0	14 0	11 0	15 0	15 0	13 0	...	...	...
24	Tipperah	10 0	13 5	11 7	...	...	...	10 0	11 7	10 0	13 14	14 8	14 92	...	...	...
25	Chittagong Hill Tracts. Hill Tipperah*	...	...	...	...	...	...	10 5	11 62	8 14	11 62	12 15	9 12	...	...	...
26	BEHAR. Patna	16 12	16 12	16 2	17 0	17 0	21 8	11 0	11 0	10 8	16 4	16 8	15 11	...	...	21 0
27	Gya	15 12	15 12	15 12	18 12	20 0	18 0	10 0	10 0	10 0	17 0	17 0	15 8	...	...	...
28	Shahabad	15 6	16 8	14 0	16 0	19 0	17 0	9 0	9 0	9 0	16 0	16 0	12 8	...	...	...
29	Darbhanga	13 4	15 3	15 8	16 8	16 8	14 13	13 0	13 0	10 4	16 8	16 8	14 0	...	...	...
	Mounseepore	16 0	16 0	13 8	18 0	19 0	15 0	9 0	9 0	9 0	14 0	14 0	13 0	...	...	...
31	Baran	15 8	15 8	14 12	16 0	17 8	20 0	8 4	8 4	8 8	14 8	13 12	11 8	...	...	...
32	Chumpearun	16 0	17 0	14 8	19 0	19 8	16 0	9 0	10 0	8 0	16 0	15 8	18 0	...	...	...
33	Monghyr	16 12	16 12	16 18	16 12	16 12	16 13	11 0	10 8	11 9	15 3	14 11	13 2	...	...	...
34	Shahpore	16 0	16 11	17 0	20 8	22 11	15 0	10 11	11 8	11 6	13 14	13 14	15 2	...	...	...
35	Purneah	16 0	16 0	16 0	...	...	...	15 0	15 0	10 0	17 0	18 0	12 0	...	...	...
36	Maldah	16 0	16 0	17 0	...	...	...	11 0	9 0	11 0	16 0	16 0	14 0	...	...	...
37	Sonthal Pargha.	14 0	15 0	13 0	...	...	...	12 0	13 0	13 0	15 0	16 0	16 0	...	...	...
ORISSA																
38	Cuttack	14 7	14 7	13 2	...	...	...	10 8	10 8	10 8	21 0	19 6	15 13	...	...	...
39	Pooree	14 7	13 2	11 13	...	...	...	14 7	13 6	15 12	21 0	21 0	19 5	...	...	...
40	Balasore	16 0	16 0	15 0	13 0	13 0	13 0	12 0	12 0	13 0	21 0	16 0	21 0	...	...	...
CHOTA NAGPORE.																
South-West Frontier Agency.																
41	Hazaribagh	14 0	16 8	11 12	17 0	17 0	14 0	10 0	8 0	10 0	16 0	17 0	...	...	...	...
42	Lohardagga	14 0	14 0	11 0	...	...	...	17 8	12 0	13 8	18 0	14 0	14 0	...	...	...
43	Singbhoom	12 0	12 0	10 0	17 0	14 0	12 0	14 0	15 0	16 0	15 0	16 0	20 0	...	...	...
44	Manbhoom	13 5	18 5	12 0	26 0	28 0	...	13 0	13 0	13 8	20 8	20 8	20 0	...	...	...

\* Return not received.

Q At Cox's Bazar retail price of salt 8 seers per rupee.

R At Feni flat retail price of salt 8 seers per rupee.

S In subdivisions retail prices of salt per rupee are:—Buxar 10 seers, Bazarman 10 seers and Bhabush 9½ seers.

T In Madhubani and Samastipur subdivisions retail price of salt 10 seers per rupee.

U In subdivisions retail prices of salt per rupee are:—Hajipur 12 seers and Sitamarhi 10 seers.

V At Bettiah retail price of salt 10 seers per rupee.

CALCUTTA,  
The 11th November, 1890.

BEERS OF 80 TOLAHS.

BAJRA OR COMBU. (Pennisetum typho- loides.)			MANGA OR RADI. (Eleusine Coracana.)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...

...	...	20	0	22	0	...	...	22	0	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	26	0	26	7	27	4	...	...
...	...	...	...	24	0	28	0	...	...	...	...
...	...	...	...	22	0	22	0	21	0	...	...
...	...	...	...	28	0	28	0	25	8	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...

...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...

...	...	...	29	0	30	0	34	0	...	...
...	...	...	43	0	45	0	52	0	...	...
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...



*Station Bazars of the Districts of Bengal on the 31st October, 1890—[concluded].*

INDIAN CORN OR MAIZE. (See Note.)												ARABIC OR TURK. CASIAN PEA. (Cassia indiana.)				PINEWOOD.			SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.								
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.													
																					Eastern Districts—concluded.												
...	...	...	...	...	...	110	110	100	10	10	8	3	14	0	3	14	0	4	0	0	Chittagong.												
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Noakhally.												
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Tipperah.												
...	...	...	...	...	...	390	390	320	0	8	0	8	0	8	0	4	8	0	4	8	0	Chittagong Hill Tracts.											
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Hill Tipperah.												
																					BEHAR.												
21	0	21	0	22	0	19	8	22	0	120	0	110	0	130	0	10	0	10	0	9	8	3	10	0	3	15	0	Patna.					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Gya.					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Shahabad.					
20	0	20	0	24	8	17	0	17	0	21	8	160	0	160	0	200	0	11	0	11	0	10	0	3	8	0	3	8	0	Durbhanga.			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Masuffpur.					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Saran.					
21	0	20	8	22	0	17	8	17	0	17	8	160	0	160	0	10	0	10	8	9	8	3	11	0	3	10	0	4	8	0	Chitrapur.		
21	0	21	0	23	1	16	12	17	13	19	15	168	0	147	147	0	9	15	10	8	9	7	3	13	0	3	11	0	4	0	Monghyr.		
21	7	22	11	22	11	18	10	18	15	17	10	151	8	151	8	170	4	10	0	10	0	10	1	3	14	6	3	14	6	3	15	0	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Patna.					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Maidah.					
21	0	25	0	27	0	21	0	20	0	17	0	200	0	200	0	200	0	9	0	9	0	9	4	3	14	0	3	14	0	4	0	Benthal Pergna.	
																					ORISSA.												
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Cuttack.					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Pooree.					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balasore.					
																					CHOTA NAGPORE.												
																					South-West Frontier Agency.												
20	0	25	0	27	0	20	0	20	0	18	0	240	0	240	0	240	0	8	0	8	0	8	0	4	8	0	4	8	0	4	8	0	Razmibagh.
24	0	28	0	32	0	22	0	26	0	15	0	180	0	120	0	140	0	9	0	9	0	8	8	4	2	0	4	2	0	4	10	0	Lahardugga.
20	0	20	0	32	0	21	0	21	0	12	0	240	0	240	0	200	0	9	0	9	0	7	0	4	8	0	4	8	0	6	8	0	Bingbhoon.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Mambhoom.

W In subdivisions retail prices of salt per rupee are :—Begur and 3½ seers and Jamul 8 seers.  
 X In subdivisions retail prices of salt per rupee are : Kibungungu 6 seers and Arturoh (at Rungungu) 10 seers.  
 Y In Kibungu subdivisions retail price of salt 8 seers per rupee.  
 Z At Shadrack retail price of salt 8 seers per rupee.  
 Z1 At Daitongungu retail price of salt 8 seers per rupee.  
 Z2 At Gwompore retail price of salt 9 seers per rupee.

Published for general information.

P. NOLAN,  
Secy. to the Govt. of Bengal.

## PRICES-CURRENT (wholesale) of Food-grains, Firewood, and S

Number.	MARKS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	2 11 10	2 12 4	2 12 9	1 15 6	2 0 2	2 2 4	4 5 2	4 3 3	4 12 11	2 12 11	2 14 1	2 14
2	Borajunge ...	2 4 0	2 5 0	2 5 0	...	...	...	4 18 0	4 4 0	4 8 0	3 4 0	3 2 0	3 0
3	Dacca ...	3 4 0	3 4 0	3 0 0	2 12 0	2 12 9	1 8 0	3 0 0	3 0 0	4 0 0	2 18 0	2 18 0	3 0
4	Karnajunge ...	...	...	...	...	...	...	3 0 0	3 0 0	4 0 0	2 12 0	2 12 0	3 8
5	Chittagong ...	3 8 0	3 8 0	3 12 0	...	...	...	3 4 0	3 4 0	4 11 0	2 8 0	2 8 0	2 12
6	Patna ...	{ 2 5 6 2 8 0	{ Red. 2 6 0 White 2 8 0	{ 2 6 0 2 10 0	{ 2 5 0 2 5 3	{ 1 18 0 3 8 0	{ 3 8 0 3 8 0	{ 3 14 0 3 0 0	{ 3 0 0 1 13 0	{ 2 8 0 2 8 0	{ 2 8 0 2 8 0	{ 2 8 0 2 8 0	{ 2 8 0 2 8 0
7	Balsore ...	2 8 0	2 8 0	2 8 0	3 0 0	3 0 0	3 0 0	3 4 0	3 4 0	3 0 0	1 13 0	2 8 0	1 12
8	Pooree ...	...	...	...	...	...	...	...	...	...	1 14 3	1 14 3	2 4
9	Cuttack ...	2 10 0	2 10 0	3 0 0	...	...	...	2 10 0	3 0 0	3 10 0	1 12 0	2 8 0	2 1

Calcutta,  
The 11th November, 1890.

PRICES PER MAUND				
R OR CHOLU. ( <i>Pennisetum Vulgare</i> .)			BAJRA OR COMBU. ( <i>Pennisetum typhoides</i> .)	
Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.
...	2 4 11	4 0 6	4 6 33	4 6
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	1 13 0	...	...	1 4 6
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...

2282a



OF 40 SEERS.

MARUA OR RAGI. ( <i>Stearns torosus</i> .)			KANGNI OR K. ITALIAN MIL ( <i>Setaria</i> sp.)	
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A.
...	...	...	4 0 08 13	
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...
1 11 6	...	1 40	2 7 02	
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...

in the undermentioned *Marts* of Bengal on the 31st October, 1890.

GRAM, GHANA, CHHOLA, KADALAY OR SUNAGA. ( <i>Cleor Aristemon.</i> )			INDIAN-CORN OR MAIZE. ( <i>Zea Mays.</i> )			ARHAR OR THUR. CATHAN PRA. ( <i>Cajanus indicus.</i> )			FIRWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
0 7 2 0 5	2 7 0	1 15 10	1 12 10	2 0 5	2 5 6	2 5 8	1 15 9	0 5 9	0 5 9	0 5 6	3 10 5	3 8 8	3 13 5	Calcutta.	
8 0 2 8 0	3 2 0	...	...	...	...	...	...	...	...	...	3 14 0	3 12 0	3 14 0	Bansjwango.	
8 0 2 8 0	3 0 0	...	...	...	2 8 0	2 8 0	2 12 0	0 5 0	0 5 0	0 4 0	4 0 0	4 0 0	3 15 0	Dacca.	
8 0 3 8 0	2 0 0	...	...	...	3 8 0	3 8 0	3 12 0	0 8 0	0 8 0	0 8 0	3 12 0	3 12 0	4 0 0	Naraingunge.	
4 0 2 14 0	3 4 0	...	...	...	...	...	...	0 5 4	0 5 4	0 7 0	3 14 0	3 14 0	4 0 0	Chittagong.	
0 0 2 0 0	2 0 0	1 13 0	1 14 0	1 12 0	2 0 0	2 0 0	1 12 0	0 5 0	0 5 0	0 5 0	3 10 0	3 10 0	3 13 0	Patna.	
2 0 2 19 0	2 12 0	...	...	...	...	...	...	0 4 0	0 4 0	0 4 0	3 14 0	3 14 0	4 2 0	Balasore.	
-	-	-	-	-	-	-	-	-	-	-	3 12 0	3 12 0	3 10 0	Pooree.	
0 2 5 0	1 12 0	...	...	...	2 0 0	2 0 0	2 2 0	0 8 0	0 8 0	0 8 0	3 12 0	3 12 0	3 12 0	Cuttack.	

Published for general information.

P. NOLAN,  
Secy. to the Govt. of Bengal.

## Meteorological Report of the Province

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.													
DISTRICT.	Representative stations.	AIR PRESSURE.					TEMPERATURE.					HUMIDITY.		CLOUD.		
		Highest, 8 A.M., barometer reading of month.	Lowest, 8 A.M., barometer reading of month.	Mean, 8 A.M., for month.	Mean reduced to sea-level.	Variation from normal mean.	Highest of month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean 8 A.M. humidity.	Variation from normal mean.	Mean cloud amount, 8 A.M.	Variation from normal mean, 8 A.M.
CALCUTTA.	Pooree	30.008	29.995	29.984	29.986	—	92.4	78.0	87.4	78.6	82.0	—	85	—	27	—
	False Point	29.995	29.987	29.978	29.986	+0.11	92.5	78.1	87.5	78.7	81.2	+1.2	85	—	27	—
	Cuttack	29.958	29.946	29.927	29.910	+0.05	93.9	79.5	85.8	74.1	82.1	+0.1	70	—	44	+0.4
	Balasore	29.951	29.940	29.925	29.910	+0.08	90.4	83.9	86.8	74.5	80.6	+0.5	87	—	28	—
SOUTH-WEST BENGAL.	South-West Midnapore and South 24-Pargannas	30.007	29.970	29.979	29.985	—0.08	90.7	79.0	85.3	75.4	80.4	+1.1	90	+2	27	+0.4
	Midnapore	29.973	29.953	29.955	29.966	+0.14	93.8	83.2	88.2	73.6	80.9	+0.6	82	—	23	—
	24-Pargannas, Howrah, and Hooghly.	30.018	29.990	29.999	29.991	0	90.8	85.7	84.7	73.4	79.1	+1.5	87	+4	29	+3.0
	Burdwan	29.916	29.912	29.921	29.924	+0.04	91.6	87.4	87.1	74.9	81.9	+0.7	83	+2	42	+0.7
SOUTH BENGAL.	Bankura	29.714	29.738	29.728	29.724	+0.17	92.1	84.3	87.1	73.6	80.0	+1.0	85	—	31	—
	West Burdwan	29.719	29.730	29.720	29.722	+0.17	92.5	82.1	84.8	73.3	79.5	+1.2	85	—	29	—
	Moorsheadabad	29.970	29.971	29.963	29.971	+0.00	90.1	84.7	84.6	73.6	78.9	+1.3	80	+7	39	+0.9
	Nuddea	29.907	29.981	29.960	29.960	+0.05	91.8	85.9	86.3	72.8	79.4	+1.2	83	—	46	—
SOUTH BENGAL.	Jessore and Khoulia	29.903	29.747	29.874	29.896	+0.07	92.8	89.6	86.7	75.1	80.9	+1.0	80	+3	50	+0.2
	Chittagong	29.951	29.739	29.833	29.830	+0.05	90.7	83.7	86.7	74.8	80.7	+0.6	80	0	44	+0.7
	Chittagong Hill Tracts	Observations not received.														
	Backergunge	29.954	29.778	29.863	29.865	+0.08	91.3	80.4	86.2	71.8	80.0	+0.4	83	—	37	—
SOUTH BENGAL.	Noakhally	29.910	29.798	29.850	29.853	+0.04	92.0	87.4	86.7	74.1	79.9	+0.1	85	—	13	—
	Furzedpore	29.914	29.759	29.836	29.834	+0.05	92.5	87.9	84.7	74.4	79.3	+0.4	85	—	36	—
	Dacca	29.909	29.762	29.833	29.840	+0.05	92.1	87.2	84.7	74.0	80.7	+1.0	85	0	49	+0.2
	Tipperah	29.919	29.777	29.837	29.833	+0.10	91.3	80.4	86.3	73.0	79.6	+1.2	82	—	41	—
SOUTH BENGAL.	Mymensingh	29.934	29.744	29.868	29.877	+0.12	92.7	87.1	84.7	73.1	78.9	+1.0	82	—	46	—
	Bogra	29.960	29.792	29.833	29.837	+0.04	92.3	84.1	84.2	73.6	78.4	+1.7	82	—	34	—
	Patna	29.931	29.740	29.845	29.842	+0.03	90.6	84.8	83.2	72.8	79.9	+1.0	80	—	44	—
	Rajshahyee	29.952	29.787	29.838	29.839	+0.09	90.3	81.7	84.0	73.8	79.4	+0.2	84	—	24	—
SOUTH BENGAL.	Maldah	29.943	29.783	29.853	29.850	+0.12	90.9	83.3	85.7	71.7	78.7	+1.4	82	—	18	—
	Dinapore	29.910	29.737	29.827	29.820	+0.04	90.6	84.9	85.1	71.0	78.4	+2.1	87	—	20	—
	Rangpore	29.935	29.766	29.850	29.850	+0.08	90.8	84.2	84.9	71.7	78.3	+1.1	87	—	17	—
	Jalpigore and Dooch Behar.	29.740	29.790	29.762	29.762	+0.04	89.9	83.1	84.0	68.0	76.3	+1.3	91	—	20	—
SOUTH BENGAL.	Darjeeling Hill Tracts.	29.121	29.942	29.934	—	+0.10	64.0	42.2	60.4	49.3	54.9	0	87	+11	63	+0.6
	Purneah and North Bhagulpore.	29.908	29.747	29.792	29.792	+0.05	91.7	80.8	84.8	70.2	77.4	+0.2	82	+5	26	+1.0
	Mossurpore	29.848	29.674	29.761	29.762	—	90.6	80.3	84.6	73.4	79.0	—	80	—	31	—
	Durbhunga	29.872	29.690	29.781	29.787	+0.18	90.9	80.0	84.7	71.1	78.4	+1.0	84	+3	19	+1.3
SOUTH BENGAL.	Chumbarun	29.897	29.647	29.761	29.763	+0.11	91.2	83.0	84.3	69.8	77.9	+0.1	84	—	12	—
	Barra	29.723	29.542	29.710	29.714	+0.05	93.8	82.0	86.2	73.1	79.7	+0.6	80	—	13	—
	Shahdol	29.834	29.693	29.761	29.762	+0.03	91.3	80.8	84.4	69.7	78.1	+0.1	79	—	18	—
	Arrah	29.797	29.604	29.700	29.700	+0.07	90.9	80.4	84.7	70.3	78.0	+1.0	79	—	17	—
SOUTH BENGAL.	Gya	29.847	29.639	29.743	29.743	+0.12	91.4	83.7	86.0	70.9	78.8	+1.4	78	+4	39	+0.8
	Bankipur	29.840	29.631	29.738	29.738	+0.10	91.9	83.3	85.0	71.7	78.6	+1.7	77	0	23	+1.3
	Bhagulpore and	29.861	29.659	29.763	29.763	+0.03	90.7	83.0	85.0	70.7	77.9	+1.2	81	—	23	—
	Naya Doonka	29.829	29.612	29.720	29.720	+0.02	90.6	80.3	85.1	70.4	77.6	+1.1	83	—	19	—
SOUTH BENGAL.	Hazariabag	29.897	29.680	29.738	29.738	+0.06	91.5	84.5	81.3	64.8	73.5	+1.5	79	+7	20	+1.1
	Manchae	29.810	29.594	29.702	29.702	+0.03	90.1	84.0	81.6	63.9	72.7	+1.0	77	—	30	—
	Chychna	29.842	29.599	29.721	29.721	+0.07	90.9	80.5	84.2	69.5	73.6	+0.6	81	—	23	—
	Shahdol	29.776	29.590	29.633	29.633	+0.13	90.1	80.8	83.8	70.9	77.5	+0.4	81	0	22	+1.2
SOUTH BENGAL.	Shahdol	29.776	29.590	29.633	29.633	+0.13	90.1	80.8	83.8	70.9	77.5	+0.4	81	0	22	+1.2
	Shahdol	29.776	29.590	29.633	29.633	+0.13	90.1	80.8	83.8	70.9	77.5	+0.4	81	0	22	+1.2
	Shahdol	29.776	29.590	29.633	29.633	+0.13	90.1	80.8	83.8	70.9	77.5	+0.4	81	0	22	+1.2
	Shahdol	29.776	29.590	29.633	29.633	+0.13	90.1	80.8	83.8	70.9	77.5	+0.4	81	0	22	+1.2

\* Mean of 30 days.

### DISTRICT OBSERVATIONS

## RAIWPASZ

DISTRICT OBSERVATIONS.											Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
RAINFALL.					Since 14th May 1890.								
Mean of district.	Of month.	Normal mean.	Variation from mean.	Number of rainy days.	Normal mean.	Variation.	Mean number of rainy days.	Normal mean.	Variation.				
10.23	8.16	+2.10	10.3	9.8	63.95	52.83	+11.81	60.0	77.7	Pooree Gopalpore Palm Point	Pooree	Orissa.	
7.63	6.63	+1.00	7.4	8.2	61.87	49.39	+11.87	61.0	78.0	Cuttack	Cuttack		
9.23	6.25	+4.03	8.0	9.6	60.39	51.74	+8.65	77.4	73.0	Balasore	Balasore	South-West Midnapore and South 24-Pargannas.	
10.37	7.72	+4.65	11.3	8.1	60.65	61.00	+4.65	87.0	82.4	Saugor Island	Saugor Island		
4.73	4.37	+0.46	7.6	5.4	50.00	50.61	-0.61	80.9	70.0	Midnapore	Midnapore	24-Pargannas, Howrah, and Hooghly.	
4.23	4.17	+4.00	8.6	7.4	60.00	60.56	+4.83	83.7	87.1	Culcutta	Culcutta		
4.90	3.97	+1.02	7.3	6.6	61.16	45.82	+15.34	81.8	75.6	Burdwan	Burdwan	West Burdwan and Berhampore.	
5.36	3.16	+1.66	7.0	5.9	62.01	61.47	+0.54	77.1	73.3	Bankura	Bankura		
5.04	3.68	+4.63	7.8	5.7	63.68	61.46	+12.13	86.6	81.0	Ranigunge	Ranigunge	Berhampore.	
7.44	4.23	+3.21	7.5	6.3	60.22	49.66	+10.56	81.6	76.5	Berhampore	Berhampore		
5.74	4.21	+4.53	8.6	6.4	51.99	46.30	+5.69	83.2	79.0	Krishnagore	Krishnagore	Jamtara and Khooia.	
7.86	4.62	+3.24	9.9	6.8	63.47	52.22	+11.25	88.7	82.0	Jamtara	Jamtara		
3.68	0.96	-2.78	9.5	6.9	117.09	110.40	+7.20	103.3	105.2	Chittagong	Chittagong	Chittagong Hill Tracts.	
4.30	7.16	-2.86	8.6	10.0	72.90	77.77	-4.87	95.5	107.3	Dumari	Dumari		
7.74	8.26	+1.59	10.3	8.6	68.16	74.26	-6.10	100.4	101.6	Barrackpore	Barrackpore	Noakhali.	
6.80	6.67	+3.48	10.0	8.9	67.98	103.16	-3.20	107.0	103.3	Noakhali	Noakhali		
7.63	6.44	+8.09	9.3	7.1	43.42	61.34	-17.92	79.9	83.9	Furzedpore	Furzedpore	Dacca.	
5.18	6.45	+0.73	10.2	4.5	59.19	59.07	-0.88	96.8	87.6	Dacca	Dacca		
4.93	5.11	+1.18	11.3	7.9	60.11	60.95	-0.84	91.3	92.6	Comilla	Comilla	Mymensingh.	
4.93	5.41	+3.62	9.2	8.7	73.98	63.10	+10.88	92.2	87.4	Mymensingh	Mymensingh		
11.96	4.46	+6.50	7.3	6.7	78.58	56.56	+22.02	81.9	70.6	Bogra	Bogra	Pabna.	
5.43	4.59	+1.04	10.5	6.0	51.38	58.53	+7.15	96.0	78.3	Srajgunge	Srajgunge		
16.05	3.78	+12.27	9.0	3.6	74.95	51.63	+23.32	91.9	74.9	Rampore Baula	Rajshahi	Malda.	
7.00	3.69	+3.31	6.5	3.8	62.13	53.10	+8.72	86.0	81.2	Malda	Malda		
14.44	3.85	+10.59	5.2	4.7	81.74	54.15	+27.59	76.8	76.4	Dinapore	Dinapore	Rangpur.	
14.28	4.80	+9.48	6.9	5.8	105.61	73.09	+32.52	100.6	74.7	Rangpur	Rangpur		
14.08	6.39	+7.69	5.3	6.1	154.61	109.53	+45.08	112.0	95.1	Jalpaiguri	Jalpaiguri and Cooch Behar.	Darjeeling Hill Tracts.	
16.26	6.05	+10.21	11.6	7.4	165.63	119.57	+46.06	136.1	109.4	Darjeeling	Darjeeling		
6.23	3.61	+2.62	4.9	4.2	60.07	57.49	+2.58	77.0	68.3	Purneah	Purneah and North Bhagalpore.	Purneah and North Bhagalpore.	
1.79	2.40	-1.01	4.3	3.3	51.37	43.67	+7.90	74.0	43.4	Moxuderpore	Moxuderpore		
1.74	2.02	-1.18	4.0	3.4	57.63	43.80	+13.73	72.3	45.7	Durbhunga	Durbhunga	Chumpran.	
2.07	3.54	+2.13	4.5	2.9	68.47	46.89	+21.58	67.6	51.9	Motibari	Motibari		
1.43	4.31	-2.73	2.3	3.6	58.00	41.07	+16.93	63.7	54.7	Chupra	Saran	Saran.	
1.34	3.50	-1.96	2.3	3.0	49.53	39.08	+10.45	72.4	58.0	Dehrot Bulir Arak	Shahabad		
0.43	2.83	-2.40	2.8	3.8	60.63	40.37	+16.36	70.8	44.0	Gya	Gya	Gya.	
1.84	3.22	-1.91	3.8	4.1	48.10	40.41	+7.69	68.0	59.6	Bankipore	Patna		
3.17	3.20	-0.03	5.0	4.3	53.25	49.24	+4.01	71.8	63.8	Bhagulpore	South Bhagulpore and Monghyr.	South Bhagulpore and Monghyr.	
10.31	2.75	+7.56	5.9	5.3	61.27	60.10	+1.17	66.0	73.8	Naya Dopraka	South Pargannas		
1.73	0.87	+0.86	5.0	5.2	40.44	46.84	-6.40	78.3	77.9	Hazribagh	Hazribagh	Hazribagh.	
1.03	2.72	-1.69	4.0	6.5	47.01	40.95	+6.06	77.3	80.5	Hanchoe	Lohardigha		
3.21	2.34	+0.87	4.0	5.9	41.45	40.76	+0.69	80.0	80.7	Hanchoe	Manikganj	Manikganj.	
1.71	2.00	-1.22	5.0	4.3	33.94	50.24	-16.30	83.0	87.7	Chyabara	Singhaom		
										Silchar	Assam	Assam.	
										Shibpur	Shibpur		
										Midnapore	Midnapore		

Table of Rainfall recorded at Station

[illegible]

Bengal in October 1890.

22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Highest rainfall during the month.	Total rainfall from 1st January 1890 up to 31st October 1890.	Average rainfall from 1st January up to 31st October.	Station.	District.	Meteorological division.
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Pooros Khordah.	Pooros	ORISSA.
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Haripur, Fakia Point, Gop. Salspara, Pipili.		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Jagatsingpore.	Outlook.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Baiki, Outtank, Kondrapara, Jajipora, Dharmesha, Salspara.		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Chandball Bhadrach, Sorah, Balasore, Jellasore, Harijodah.	Balasore.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Ontal, Bangal Island, Tamluk, Midnapore, Ghatal, Kukurahaty, Garhata.	Midnapore	SOUTH-WEST BENGAL.
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Diamond Har- bour, Canning Town, Alipore Jail, Baruckpore, Dum-Dum, Harkat, Bunderhat.	24-Parganahs	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Howrah Mohoraka (Oolabertah).	Howrah.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Serampore Hooghly, Jahasabad.	Hooghly.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Quila Burdwan, Outwa, Kanasungu, Manikur.	Burdwan.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Bankora Bishnupore, Malara, Khatra, Indas, Kotulpore, Andas, Gangajalbasti, Rajpore, Sonamukhi.	Bankora.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Bh. Boory, Hotaipore, Rampore Heat, Bopur, Murarai.	Bardhaman.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Hanrahat, Kishungar, Choudanga, Moharpore, Koochha.	Nuddas.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Nakthira, Bagirhat, Koochha, Nakipur, Rampal.	Khealpa.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Namil, Jaspore, Jhoidah, Nagorah, Mongong.	Jansora.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Kandi, Berhampore, Lalbagh, Avimganga, Jangipore, Lalgola, Jalganga, Athrigang, Pathabari.	Moorshedabad.	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Oor's Havar, Chittagong, Kutubdia, Nulkanya.	Chittagong	EAST BENGAL.
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	11.3	11.00	8.08	4.30	68.00	51.36	Rangamati, Muna.	Chittagong Hill Tracts.	

Table of Rainfall recorded at Sta.

[illegible]



Bengal in October 1890 —continued.

[illegible]

Table of Rainfall recorded at Stettin

[illegible]

Rainfall for the month of October 1890—concluded.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January 1880 up to 31st October 1890.	Average rainfall from 1st January up to 31st October.	Station.	District.	Metereological division.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	3135	3136	3137	3138	3139	3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155	3156	3157	3158	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173	3174	3175	3176	3177	3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194	3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS  
TAKEN IN ASSAM, FOR THE MONTH OF OCTOBER 1890.**

*Meteorology of the month.*—Up to the end of September weather conditions were still being controlled by the depression which had formed in the Bay off the Circars, and after moving into Central India had changed its direction and moved to the north-east over Bengal. The general rainfall practically ceased at the end of that month, and as the pressure distribution had become very uniform and tended to become relatively high at Bengal stations as compared with that at those on the coast, the monsoon current became very weak, and rainfall was almost entirely absent during the first ten days of October. After the sky cleared temperature increased rapidly, and dry westerly winds blew over the whole province as far as the borders of Assam on the 1st and 2nd. As easterly winds continued down the Assam valley the interaction seems to have been the cause of unsettled conditions, which first became apparent on the 3rd in the east of North Bengal and on the following day spread over almost the whole of Bengal. Thunderstorms with local falls of rain and a general fall of temperature occurred in North Bengal on the 2nd and 3rd, and in all districts except Chutia Nagpur and Behar on the 4th, while with the advance of the unsettled conditions winds changed from westerly to south-east and temperature underwent considerable variations. On the 5th the difference of pressure in the northern districts of Bengal from that in the south of the Bay was only a tenth of an inch, and as it began to increase in the east of Assam, the rise gradually extending in a south-westerly direction, the distribution underwent a change which by the 8th gave highest pressure in Bengal and lowest in the south of the Bay. These altered conditions were accompanied by fine weather with falling temperature and light northerly winds, but for a few days only, as a low-pressure area formed in the south of the Bay and advanced in a northerly direction so as to pass over the western districts of Bengal.

*Cyclonic storm from the 8th to the 16th.*—The low-pressure area was faintly noticeable on the 8th, in the relatively low pressure at Madras and Nellore and the indraught across the coast at the southern stations. The depression probably covered the greater part of the southern half of the Bay as the wind velocity at Diamond Island had increased from 4 to 12 miles an hour, and the direction being south-easterly, evidently belonged to a cyclonic circulation. There was very little change till the 11th, the depression deepening slowly, but apparently remaining diffused, while rainfall was very light along the west coast. On the 11th moderately heavy rain fell at all stations in the Circars and Orissa, pressure changed much more rapidly, specially at Coconada and Vizagapatam, and squally weather became general along the west coast. The centre of the depression was to the east of Coconada, moving in a north or north-westerly direction. On the 12th rainfall had increased varying from 2 to 4 inches in the Circars and Orissa, and it had extended to some of the inland stations of Western Bengal. The centre was then close to the coast between Vizagapatam and Gopalpur, but as it was moving almost due north, it did not cross the coast till the following morning. Gopalpur alone reported lower pressure (by .037 inch), and as changes were elsewhere small, there was every appearance of the depression beginning to fill up. Wind velocity also favoured this conclusion, as the highest recorded during the storm was 31 miles an hour at Pooree on the 11th. It fell to 23 on the 12th and 14 on the 13th, after which there was a slight increase. The area of heavy rainfall kept steadily ahead of the centre of the disturbance, and on the 13th when it was near Gopalpur the heaviest fall in the Circars was .85 inch, but in Orissa, False Point and Pooree received between 4 and 5 inches, and moderate amounts were falling in South-West and East Bengal. On the 14th the area of lowest pressure covered the northern half of Orissa and the adjacent parts of South-West Bengal and Chutia Nagpur, the lowest reading being 29.657 inches at Burdwan. Squally weather with very heavy rain prevailed in Lower Bengal, and also on the following day, though the depression was filling up. As the centre moved northwards, pressure continued rising with great rapidity, and unusually heavy rain fell in North Bengal on the 15th and 16th. After this pressure was above 30 inches except in Lower Bengal, and readings about a twentieth of an inch above the normal. Showers continued to fall, but weather was rapidly clearing.

It may be noted that the rainfall accompanying this storm, especially during the earlier part of its existence, was almost entirely in front of the area of lowest pressure.

Fine weather prevailed till the 20th, when the second depression of the month began to appear to the east of the centre of the Bay. A south-easterly wind was blowing at Diamond Island, and velocity for the previous day was 14 miles an hour, while at 8 a.m. it was 24 miles. These strong winds continued on the 21st, when the depression had moved to the north and was covering the northern half of the Bay. Meanwhile fine clear weather with a few local showers was general in Bengal, and northerly winds were blowing in Arakan, Bengal, and Orissa.

The storm proved to be of very local influence, and as it moved over the Sunderbuns and East Bengal, gave squally weather and moderate rain only in the near neighbourhood of its centre. On the 23rd the centre was near Furreedpore which received three inches, while the falls at Jessore and Dacca were about 2 inches. On the 24th it was diffused and shallow, but the wind circulation was cyclonic round a centre between Dacca and Serajgunga. On the 25th normal weather prevailed with northerly or north-westerly winds

at all stations, and rapidly falling temperature. Till the end of the month similar weather continued with high pressure in the north and lowest in the extreme south of the Bay where conditions were unsettled.

*Pressure.*—At the beginning of the month the distribution was very uniform and above the normal by amounts varying from .08 inch in the west of the province to rather less than .05 inch at eastern stations. Up till the 5th there was a steady fall, then a moderate rise for two days, after which readings were very nearly normal. Considerable changes occurred during the existence of the storm, that is, from the 10th to the 16th; the rise being very rapid on the 15th and 16th, more especially in the western half of the province. On the 16th readings were over 30 inches at Sibsaagar and Motihary, and on the 17th over almost the whole province, the exceptions being in South-West and East Bengal. During the latter half of the month changes were generally small. While the small depression was moving over East Bengal, the largest fall was about a tenth of an inch, and this was followed by a brisk rise. The means for the month rarely differ from the normal by more than a few thousandths of an inch.

*Temperature.*—Has frequently been below the normal, and means are largely in defect—for Chutia Nagpur by 1.6°, North Bengal 1.4°, South-West Bengal and South Behar 1°, Assam .9°, Orissa and East Bengal .5°, and North Behar .3°. There was excess of between 1° and 3° at the beginning of the month, and the general tendency up to the 10th was to keep slightly above the normal. While the heavy rain was falling, day temperatures were very low, and means for the period between the 10th and 17th were below the normal by amounts ranging up to 3.8° in North Bengal. From the 17th till the end of the month comparatively cool weather prevailed, defect averaging more than 1° in all districts except Orissa, where there was excess of about 1° during the last few days.

*Rainfall.*—Showers fell on the 4th and 5th, and again on the 23rd and 24th, but almost the whole rainfall of the month was received between the 9th and 17th. During these days, however, the falls were unusually heavy, first in Orissa and afterwards in South-West, East and North Bengal, so that the mean falls for the large divisions are all above the normal except that for Chutia Nagpur, which is deficient by nearly one inch. The mean fall for North Bengal is 12.3 inches, or 8 inches in excess; for Orissa 9 inches, or 2.84 inches in excess; and for South-West Bengal 8.07 inches, or 3.74 inches in excess. The falls for the other divisions are East Bengal 6.92, South Behar 3.78, North Behar 3.59, and Chutia Nagpur 2.07 inches.

The following table gives a comparison between the actual monthly and total rainfall and the normal rainfall of the province up to the end of October in the same form as has been employed in the previous monthly abstracts of the present year. The figures represent the ratio of the rainfall of each month of the present year to the normal rainfall expressed as a percentage. The table thus gives a condensed summary of the rainfall data of the year for each meteorological division. The first ten columns give the percentage amount of rainfall received in each month, and the last column the percentage rainfall of the whole period from the 1st of January to the end of October. It will be seen that there is excess of 34 per cent. in North Bengal, 28 in North Behar, and 23 in South Behar, while Chutia Nagpur and East Bengal have received less than the normal:—

METEOROLOGICAL DIVISIONS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Actual rainfall of first ten months of 1890 expressed as a percentage of the normal fall for the period.
Orissa	24	5	216	20	99	124	97	80	168	143	116
South-West Bengal	88	Nil	39	75	87	141	102	89	104	188	102
East Bengal	181	4	70	122	102	89	120	88	60	188	85
North Bengal	98	Nil	26	155	81	132	129	132	143	281	134
North Behar	38	2	25	40	95	140	174	134	97	101	128
South Behar	Nil	5	68	80	95	183	136	135	83	115	123
Chutia Nagpur	Nil	Nil	120	1	65	132	116	75	31	70	92

The area of deficient rainfall lies almost entirely in the west of the province, including the whole of Chutia Nagpur and of Behar with the exception of Purneah and the Sonthal Pergunnahs. The difference from the normal in the former is about half an inch in all districts except Hazaribagh and Lohardugga, where, as in Behar, defect amounts are generally over 2 inches. The largest defect is in Chittagong, being 4.5 at Cox's Bazar, 3.25 at Rangamati, and 2.4 inches at Ruma. Parts of Burdwan, Hooghly, and Dacca received deficient rainfall by about 1 inch. Very heavy falls were registered in the south of the Sonthal Pergunnahs, excess at Jamtara being 15.22, at Nya Doomka 8.47, and at Pakour 7.74 inches; but in Purneah and Chumparan excess was only 2 or 3 inches except at Kissengunge, where it was over 10 inches. In South-West and East Bengal excess was very irregular and ranged up to 12.7 inches at Saugor Island, but as a rule it was between 2 and 3 inches. In the north of East Bengal and in North Bengal it ranged from 5 to 15 inches, and in the latter was at many places between 8 and 10 inches. Actual falls were

under 2 inches in Chutia Nagpur except Manbhoon, and in the western half of South Behar : between 2 and 5 inches in the western half of the province except Orissa and parts of South-West Bengal ; and between 5 and 10 inches in Orissa, the greater part of South-West Bengal and East Bengal, except the Sunderbuns and a narrow strip along the Bengal and Orissa coasts, where they were over 10 inches, and at Contai and Sanger Island over 20 inches. At many stations in the Sonthal Pergunnahs falls were over 10 inches, and in North Bengal between 10 and 20 inches.

The following table gives full data for the comparison of the actual and normal rainfall of the month of October in all districts of the province. The figures are obtained in the manner explained in previous monthly summaries. The first column gives the average district rainfall as determined from the rainfall observations of the past 15 years. The second column gives the actual district rainfall as determined from the actual weighted rainfall of the month at the reporting stations in the district. The third column expresses the ratio of the actual district rainfall to the normal as a percentage, and the fourth the same information in a slightly different form :—

Percentage Table for October 1890.

Division.	District.	Normal district rainfall for October.	Actual district rainfall for October 1890.	Percentage of actual to normal rainfall.	Percentage excess (+) or deficit (—).
Orissa	Pooree	7.43	10.84	146	+ 46
	Cuttack	5.69	7.45	131	+ 31
	Balasore	5.36	9.54	176	+ 76
	Midnapore	5.26	7.85	149	+ 49
	24 Pergunnahs	4.46	10.83	243	+ 143
	Howrah	3.65	5.99	164	+ 64
	Hooghly	4.07	5.70	140	+ 40
South-West Bengal	Burdwan	4.16	4.27	103	+ 3
	Bankura	3.77	5.04	134	+ 34
	Beerbhoom	3.41	3.87	114	+ 14
	Nuddea	4.17	3.87	93	— 13
	Khoolna	4.53	7.13	158	+ 58
	Jessore	4.45	5.81	131	+ 31
	Moorshedabad	4.87	7.13	146	+ 46
East Bengal	Chittagong	6.60	4.05	61	— 39
	Backergunge	5.33	7.40	138	+ 38
	Noakhally	7.37	9.57	130	+ 30
	Furzedpore	4.24	7.74	183	+ 83
	Dacca	4.61	5.85	127	+ 27
	Tipperah	5.26	6.32	120	+ 20
	Mymensingh	5.33	9.35	175	+ 75
North Bengal	Patna	4.43	5.63	127	+ 27
	Bogra	4.34	11.00	256	+ 156
	Rajshahye	4.53	10.23	226	+ 126
	Maldah	3.63	7.00	193	+ 93
	Dinagpore	3.44	11.45	333	+ 233
	Rangpore	4.46	14.06	315	+ 215
	Cooch Behar	4.99	14.37	288	+ 188
North Behar	Jalpigoree	5.25	18.29	348	+ 248
	Darjeeling	6.10	10.02	164	+ 64
	Purneah	3.43	3.94	115	+ 15
	North Bhagulpore	3.36	2.19	65	— 35
	Durbhunga	2.72	1.87	69	— 31
	Muzafferpore	3.03	1.31	43	— 57
	Chumpanan	3.46	5.56	161	+ 61
South Behar	Saran	3.74	1.50	40	— 60
	Shahabad	3.19	1.39	44	— 56
	Gya	2.58	0.42	16	— 84
	Patna	2.97	1.13	38	— 62
	Monghyr	3.13	2.25	72	— 28
	South Bhagulpore	3.64	4.39	121	+ 21
	Sonhal Pergunnahs	3.63	10.03	277	+ 177
Chutia Nagpur	Hazaribagh	3.26	1.61	49	— 51
	Lohardugga	2.47	1.35	55	— 45
	Singbhoon	2.94	1.78	61	— 39
	Manbhoon	3.68	3.14	85	— 15

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of October 1890:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.							
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.			Since 15th May 1860.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.
Orissa	83.9	63.9	87.2	72.1	81.2	-0.5	8.00	6.18	+1.82	8.2	6.1	+2.1	61.77	61.24
North-West Bengal	83.3	62.1	86.4	72.7	80.1	-1.0	8.07	4.33	+3.74	8.4	4.8	+3.6	65.04	61.00
East Bengal	84.1	63.8	85.9	74.1	80.0	-0.8	6.94	5.48	+1.46	9.7	7.7	+2.0	71.24	75.60
North Bengal	80.9	62.1	84.9	71.8	78.4	-1.4	12.50	4.33	+7.92	7.4	5.8	+1.6	64.57	63.07
North Bihar	82.8	66.9	83.6	71.4	78.6	-0.3	3.50	3.54	+0.06	4.1	3.7	+0.4	64.38	61.90
South Bihar	81.9	67.8	83.9	70.6	78.2	-1.0	3.78	3.30	+0.48	4.8	4.3	+0.5	54.57	62.97
Chittagong	86.6	65.9	81.4	64.8	73.1	-1.6	3.07	2.97	+0.10	5.0	6.8	-1.8	62.06	67.94
Assam	84.5	61.9	83.1	71.7	78.4	-0.9								

\* Chyabasa not included.

METEOROLOGICAL OFFICE, BENGAL;

The 11th November 1890.

O. LITTLE,

Off. Meteorological Reporter to the Govt. of Bengal.



## Meteorological Report of the Province of Bengal.

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.													
			AIR PRESSURE.			WIND.		TEMPERATURE.								
			Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Mean.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	
ORIGINAL.	Pooree	Pooree	29.945	29.977	—	NE	178	85.7	5th Nov.	73.1	3.5 & 5 Nov.	81.8	78.7	77.5	—	
		Gopalpore	29.965	29.985	+0.02	N	234	86.2	2nd	71.9	2 & 3	81.6	78.8	78.0	0	
		False Point	29.949	29.981	+0.03	North-Easterly	158	85.0	4th	70.1	6th	81.8	78.2	77.0	-0.2	
	Outlook	Outlook	29.917	29.940	+0.02	NE	87	85.3	1 to 7	69.8	6th	85.6	78.3	78.5	+0.2	
SOUTH-WEST BENGAL.	Balesore	Balesore	29.950	29.911	+0.03	N.W. & Calm	87	81.4	8th	66.8	5 to 7	81.9	69.1	70.5	-0.1	
	South-West Midnapore	Saugor Island	29.977	29.904	+0.03	North-Easterly	192	84.7	6th	69.4	8th	82.8	70.4	70.5	+0.1	
	Midnapore	Midnapore	29.885	29.912	+0.02	NE	183	86.3	2 & 6	69.2	6th	85.1	68.9	77.1	+1.8	
	14-Pargannahs	Calcutta	29.991	29.913	+0.07	North-Easterly	38	83.4	1st	68.8	6th	82.4	68.1	78.3	-1.1	
SOUTH-WEST BENGAL.	Howrah	Howrah	29.985	29.903	+0.07	Calm	37	83.3	1st	67.4	6th	84.2	69.1	78.5	-0.1	
	Hooghly	Hooghly	29.985	29.903	+0.07	Calm	32	80.2	6th	66.7	6th	84.2	68.7	78.5	+0.5	
	Bardwan	Bardwan	29.952	29.903	+0.04	NE	34	83.3	6th	67.4	7th	82.8	65.8	75.8	+0.3	
	West Bardwan	West Bardwan	29.950	29.919	+0.03	NE	40	83.1	6th	67.7	6th	82.0	65.9	74.0	-1.4	
SOUTH-WEST BENGAL.	Moorsheadabad	Moorsheadabad	29.958	29.919	+0.04	ENE	68	85.5	1st	63.5	7th	84.5	66.4	75.4	-0.4	
	Nuddea	Nuddea	29.951	29.914	+0.04	Calm	34	84.7	1 & 6	68.5	6 & 7	84.9	70.0	77.0	-1.4	
	Jessore	Jessore	29.951	29.914	+0.04	Variable	28	80.8	3rd	66.8	7th	83.3	70.4	77.0	-0.3	
	Chittagong	Chittagong	29.919	29.911	+0.04	Variable	28	80.8	3rd	66.8	7th	83.3	70.4	77.0	-0.3	
SOUTH-WEST BENGAL.	Chittagong Hill Tracts	Demagiri	29.957	29.959	+0.002	NE	63	83.8	4 & 5 Nov.	68.0	6th	83.4	69.6	76.0	-0.2	
	Bacharkunge	Bacharkunge	29.954	29.909	+0.05	SE	71	83.5	4 & 5	68.2	7th	83.0	67.0	76.0	-1.1	
	Noakhally	Noakhally	29.951	29.932	+0.02	NE & N	43	83.0	1st	66.0	7th	81.0	68.5	75.0	-0.1	
	Farrakka	Farrakka	29.979	29.902	+0.07	North-Easterly	99	85.1	1st	63.8	7th	86.7	69.0	75.3	-1.2	
SOUTH-WEST BENGAL.	Dacca	Dacca	29.970	29.912	+0.05	N	142	84.4	1st	61.8	6th	86.5	65.6	74.5	-2.3	
	Comilla	Comilla	29.950	29.916	+0.03	North-easterly	50	82.7	1st	61.5	7th	81.2	63.8	72.5	-2.7	
	Mymensingh	Mymensingh	29.942	29.907	+0.03	NE	57	83.2	1st	67.1	1st	81.3	64.7	73.0	-1.1	
	Bogra	Bogra	29.975	29.913	+0.06	N	25	84.0	1st	60.0	7th	81.5	66.0	73.1	-1.5	
SOUTH-WEST BENGAL.	Pubna	Pubna	29.942	29.914	+0.03	NE	26	82.5	6th	66.2	7th	81.0	68.0	75.1	+0.2	
	Rajshahi	Rajshahi	29.945	29.910	+0.03	NE	61	81.7	1st	62.2	7th	82.7	66.8	74.5	+1.0	
	Malda	Malda	29.911	29.917	+0.006	NW	84	82.6	2nd	66.7	7th	83.1	64.0	73.8	+0.3	
	Dinapore	Dinapore	29.905	29.932	+0.02	ENE	80	84.2	1st	66.7	6 & 7	82.2	63.4	72.4	-0.5	
SOUTH-WEST BENGAL.	Rungpore	Rungpore	29.787	29.937	+0.15	?	128	84.8	1st	67.3	6th	81.0	69.1	70.4	-1.3	
	Jalpigore	Jalpigore	29.924	—	—	Variable	86	85.3	7th	62.8	3rd	83.6	69.9	67.2	-2.9	
	North Bhagalpore	North Bhagalpore	29.900	29.981	+0.08	Calm	24	83.2	1st	69.0	6th	81.4	62.7	78.1	-1.7	
	Moulvibazar	Moulvibazar	29.846	29.981	+0.13	Calm	24	81.0	1st	62.2	1st	80.5	66.7	73.2	—	
SOUTH-WEST BENGAL.	Darbhanga	Darbhanga	29.866	29.947	+0.08	WNW	37	81.9	2nd	60.6	6th	81.5	61.8	71.7	-3.0	
	Champaran	Champaran	29.819	29.953	+0.13	Variable	91	81.2	1, 3 & 5	65.0	6th	80.0	67.9	69.5	-1.0	
	Supur	Supur	29.839	29.940	+0.10	Calm	14	82.8	6th	63.4	1st	81.8	65.0	75.3	-0.1	
	Dehree	Dehree	29.878	29.943	+0.06	Calm	23	84.3	1st	68.0	1st	83.1	66.3	71.7	-1.5	
SOUTH-WEST BENGAL.	Shahabad	Shahabad	29.793	29.945	+0.15	WNW	43	83.4	2nd	60.8	3rd	83.5	64.7	74.7	-1.4	
	Barabanki	Barabanki	29.807	29.937	+0.13	Variable	5	83.8	1st	60.0	1st	82.9	61.7	72.3	-0.8	
	Gya	Gya	29.843	29.956	+0.11	S	106	84.4	1 & 2	62.1	2nd	83.6	65.5	74.5	-0.1	
	Patna	Patna	29.851	29.945	+0.09	Calm	28	85.3	1st	62.7	2nd	81.0	64.7	73.2	-1.7	
SOUTH-WEST BENGAL.	South Bhagalpore	South Bhagalpore	29.852	29.919	+0.06	Calm	3	82.3	1 to 2	68.0	6 & 7	81.5	64.2	74.1	+1.2	
	Monohar	Monohar	29.811	29.920	+0.11	S	44	83.6	3th	68.3	7th	81.9	66.7	74.5	+0.0	
	Hasaribagh	Hasaribagh	29.775	29.940	+0.16	Variable	94	79.2	1st	60.5	7th	77.7	63.1	69.9	-0.5	
	Lohardigha	Lohardigha	29.858	29.935	+0.08	Calm	72	80.3	6th	60.5	1st	77.9	61.3	69.0	+0.2	
SOUTH-WEST BENGAL.	Simlaboom	Simlaboom	29.743	29.928	+0.18	ENE	25	80.0	1st	63.0	6th	84.1	65.7	70.4	+0.0	

\* Means of five days.

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period for the years 1871 to 1890. The humidity of the atmosphere is expressed as percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The mean of the numerical means or average of the rainfall in that district determined from the returns sent to the sub-divisional station for the period in question during the same years is the district mean rainfall. A rainy day is one on which at least hundredth of an inch falls.

the week ending Friday, the 7th of November 1890.

No.	Average cloud amount at 8 A.M. for week.	Rainfall of week at observing station.	DISTRICT OBSERVATIONS.										Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.			
			Of week.	RAINFALL.														
				Since 1st of month.				Since 15th May 1890.				Average number of rainy days.				Normal number of rainy days.		
				Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.									
1	8.4	1.81	1.34		1.31				65.67			1.0	Pooree	Pooree	ORISSA			
2	6.1	3.33											Gopalpore					
3	5.4	3.00											False Point					
4	8.0	1.47	1.85	0.51	1.85	0.51	+1.33	65.53	60.31	+13.22	1.6	0.5	Cuttack	Cuttack	ORISSA			
5	2.0	8.18	0.73	0.54	0.73	0.24	+0.19	61.12	62.53	+0.91	1.0	0.5	Balasore	Balasore				
6	7.7	1.44	0.01	0.49	0.61	0.40	+0.15	66.20	61.43	+4.80	2.0	0.5	Baugor Island	South-West Midnapore				
7	3.4	Nil	Nil	0.16	Nil	0.16	-0.16	60.00	60.77	-0.77	0.0	0.4	Midnapore	Midnapore	SOUTH-WEST BENGAL			
8	2.7	0.01	0.07	0.24	0.07	0.25	-0.13	55.16	50.21	+4.95	0.3	0.4	Cuttack	24-Pargannas				
9	6.7	0.56	0.23	0.33	0.35	0.39	-0.04	61.41	46.11	+15.30	0.7	0.4	Burdwan	Howrah				
10	6.3	Nil	0.01	0.23	0.01	0.33	-0.22	58.02	41.70	+0.31	0.2	0.2	Bankura	Hughly	SOUTH-WEST BENGAL			
11	4.0	0.10	0.39	0.09	0.39	0.09	+0.10	63.03	51.53	+12.50	1.3	0.3	Raneegunge	Burdwan				
12	2.4	0.03	0.33	0.14	0.33	0.14	+0.19	60.33	49.80	+10.53	0.7	0.2	Bachampore	West Bardwan				
13	4.4	0.19	0.04	0.24	0.04	0.24	-0.25	65.03	48.56	+6.47	0.3	0.4	Krishnagar	Moordhabad	SOUTH-WEST BENGAL			
14	3.4	Nil	0.40	0.27	0.06	0.27	-0.31	59.51	54.40	+5.11	0.1	0.4	Jessore	Nuddea				
15	5.9	1.41	1.37	1.23	1.37	1.23	+0.12	119.01	111.05	+7.96	3.0	0.3	Chittagong	Jessore				
16	4.0	Nil	Nil	1.05	Nil	1.05	-1.05	73.32	79.12	-5.80	1.0	1.2	Demagiri	Chittagong Hill Tracts	SOUTH-WEST BENGAL			
17	0.3	Nil	Nil	1.43	Nil	1.43	-1.43	64.16	75.40	-11.24	0.0	0.6	Barrack	Sackergunge				
18	0.9	Nil	Nil	0.37	Nil	0.37	-0.37	45.42	64.71	-19.29	0.0	1.0	Noakhully	Noakhully				
19	2.9	Nil	Nil	0.41	Nil	0.41	-0.41	59.10	52.48	+6.62	0.0	0.3	Furzedpore	Furzedpore	SOUTH-WEST BENGAL			
20	2.7	Nil	Nil	0.58	Nil	0.58	-0.58	60.11	67.45	-7.34	0.0	0.2	Dacca	Dacca				
21	3.6	0.07	0.17	0.13	0.17	0.13	-0.01	75.63	68.28	+7.35	0.4	0.6	Commilla	Tipperah				
22	1.4	0.83	0.44	0.16	0.41	0.15	+0.26	78.03	68.71	+9.32	1.0	0.3	Hogra	Mymensingh	SOUTH-WEST BENGAL			
23	1.4	1.14	0.57	0.31	0.57	0.23	+0.35	54.03	52.75	+1.28	1.0	0.4	Serajunga	Bogra				
24	1.0	1.10	0.33	0.04	0.33	0.06	+0.25	75.05	68.70	+6.35	1.0	0.3	Rampore	Pubna				
25	0.0	0.08	0.03	0.11	0.02	0.11	-0.09	63.16	53.51	+9.65	0.5	0.3	Maldah	Rajshahy	SOUTH-WEST BENGAL			
26	1.3	Nil	Nil	0.03	Nil	0.03	-0.03	61.74	46.18	+15.56	0.0	0.1	Dinapore	Maldah				
27	0.0	Nil	Nil	Nil	Nil	Nil	Nil	106.01	73.00	+33.01	0.0	0.0	Bungpore	Dinapore				
28	0.0	Nil	Nil	Nil	Nil	Nil	Nil	154.01	109.25	+44.76	0.0	0.0	Jalpigore	Bungpore	SOUTH-WEST BENGAL			
29	3.4	Nil	Nil	0.04	Nil	0.04	-0.04	165.53	118.01	+47.52	0.0	0.0	Darjeeling	Joach Behar				
30	1.6	Nil	Nil	0.01	Nil	0.01	-0.01	80.57	58.00	+22.57	0.0	0.0	Purnea	Jalpigore				
31	0.7	Nil	Nil	0.03	Nil	0.03	-0.03	52.07	49.70	+2.37	0.0	0.1	Moukshpore	Joach Behar	SOUTH-WEST BENGAL			
32	1.7	Nil	Nil	0.01	Nil	0.01	-0.01	67.43	45.91	+21.52	0.0	0.1	Durbanga	Darjeeling Hill Tracts				
33	0.9	Nil	Nil	Nil	Nil	Nil	Nil	68.47	45.69	+22.78	0.0	0.0	Mettheri	Purnea				
34	0.7	Nil	Nil	0.03	Nil	0.03	-0.03	53.01	41.70	+11.31	0.0	0.1	Chupra	North Bhagalpore	SOUTH-WEST BENGAL			
35	3.9	Nil	Nil	0.03	Nil	0.03	-0.03	49.28	36.18	+13.10	0.0	0.0	Uttara	Chupra				
36	4.3	Nil	Nil	0.07	Nil	0.07	-0.07	49.28	36.18	+13.10	0.0	0.0	Kuzar Arrah	Saran				
37	4.1	Nil	Nil	0.14	Nil	0.14	-0.14	50.03	40.71	+9.32	0.0	0.0	Gya	Shahabad	SOUTH-WEST BENGAL			
38	3.7	Nil	Nil	0.19	Nil	0.19	-0.19	48.18	43.51	+4.67	0.0	0.0	Bankipore	Kuzar Arrah				
39	4.0	Nil	Nil	0.03	Nil	0.03	-0.03	52.35	43.37	+8.98	0.0	0.1	Bhagulpore	Gya				
40	1.6	0.11	0.03	0.03	0.03	0.03	+0.03	65.09	50.15	+14.94	0.3	0.2	Bhagulpore	South Bhagalpore	SOUTH-WEST BENGAL			
41	0.4	Nil	0.01	0.13	0.01	0.13	-0.12	48.45	45.07	+3.38	0.2	0.3	Hazratnagar	Longhyr				
42	0.9	Nil	Nil	0.19	Nil	0.19	-0.19	47.61	47.14	-0.47	0.0	0.1	Manchi	South Pargannas				
43	0.9	Nil	Nil	0.19	Nil	0.19	-0.19	47.61	47.14	-0.47	0.0	0.1	Manchi	Manchi	SOUTH-WEST BENGAL			
44	0.9	Nil	Nil	0.19	Nil	0.19	-0.19	47.61	47.14	-0.47	0.0	0.1	Manchi	Manchi				
45	0.9	Nil	Nil	0.19	Nil	0.19	-0.19	47.61	47.14	-0.47	0.0	0.1	Manchi	Manchi				

years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The variations are positive when the mean for the week is less than the corresponding normal mean, and negative when greater. The variations are positive when the mean for the week is less than the corresponding normal mean, and negative when greater.

## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 7th of November 1890.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1890.	Average rain-fall from 15th May to date.
			Saturday, 1st November.	Sunday, 2nd November.	Monday, 3rd November.	Tuesday, 4th November.	Wednesday, 5th November.	Thursday, 6th November.	Friday, 7th November.	Number of rainy days.	of Rainfall week.				
UPPERA	POORBE	Poorbe	1.17	0.18	0.01	0.41	0.43	0.08	...	0	2.28	2.28	1.40	89.97	40.38
		Khurda	0.30	0.80	0.00	0.30	1.00	...	...	0	5.00	3.30	1.20	86.10	47.38
		Palma Point	0.40	1.75	...	0.30	1.00	...	...	0	5.00	3.30	1.20	86.10	47.38
	OUTTAK	Satpara	2.25	0.40	0.11	0.47	...	...	...	1	1.00	1.54	0.23	83.67	45.58
		Papli	0.18	...	...	...	...	...	...	1	1.00	1.54	0.23	83.67	45.58
		Jagatsingapore	1.40	...	...	...	...	...	...	1	1.00	1.54	0.23	83.67	45.58
		Banki	3.01	2.07	...	...	...	...	...	2	3.08	5.08	0.40	84.02	48.34
		Outtark	1.00	0.73	...	...	...	...	...	2	1.79	1.79	0.08	81.90	42.48
		Kendrapara	0.32	0.27	...	...	...	...	...	2	0.59	0.59	0.07	83.18	42.77
		Jalpara	...	0.26	...	...	...	...	...	1	0.24	0.24	0.03	82.91	41.78
SOUTH-WEST BENGAL	BALASORE	Dharmat	0.10	...	...	...	...	...	...	1	0.10	0.10	...	84.18	...
		Satpara	0.70	...	...	...	...	...	...	1	0.70	0.70	...	84.18	...
		Chandball	0.08	0.14	0.08	...	...	...	...	3	0.16	0.16	0.03	81.81	41.42
	MIDNAPURA	Bhadra	...	0.68	...	...	...	...	...	1	0.68	0.68	0.08	87.63	40.88
		Sorah	0.10	...	...	...	...	...	...	1	0.10	0.10	0.01	84.84	40.44
		Balasore	2.05	0.20	...	...	...	...	...	2	2.25	2.25	0.09	86.13	42.82
		Jollapore	1.41	...	...	...	...	...	...	1	1.41	1.41	0.23	86.13	42.82
	14-PERGANAS	Karpatia	...	...	...	...	...	...	...	...	...	...	0.34	82.79	42.79
		Gonai	0.30	0.15	0.02	...	...	...	...	2	0.45	0.45	0.03	87.78	40.68
		Banger Island	0.20	1.25	0.02	...	...	...	...	3	1.44	1.44	0.70	89.03	40.88
		Tuplook	...	...	...	...	...	...	...	NH	NH	NH	0.28	87.00	40.48
		Midnapore	...	...	...	...	...	...	...	NH	NH	NH	0.20	87.47	40.48
		Ghatol	...	...	...	...	...	...	...	NH	NH	NH	0.02	84.01	43.44
		Kutubkhali	...	...	...	...	...	...	...	NH	NH	NH	0.02	80.20	41.78
SOUTH-WEST BENGAL	HOWRAH	Garbetta	...	...	...	...	...	...	...	NH	NH	NH	?	40.23	?
		Diamond Harbour	0.04	...	...	...	...	...	...	1	0.04	0.04	0.03	83.18	47.30
		Canning Town	...	...	...	...	...	...	...	NH	NH	NH	?	80.00	?
		Alipore Jail	...	0.05	...	...	...	...	...	1	0.05	0.05	0.01	81.36	44.44
		Barrackpore	...	...	...	...	...	...	...	NH	NH	NH	0.40	80.01	44.44
		Thun-Dum	0.20	...	...	...	...	...	...	1	0.20	0.20	0.17	80.74	44.78
		Berasat	...	...	...	...	...	...	...	NH	NH	NH	0.14	84.84	48.34
	HOWRAH	Howrah	...	...	...	...	...	...	...	NH	NH	NH	0.24	88.67	43.78
		Wobesche	...	...	...	...	...	...	...	NH	NH	NH	0.25	81.84	40.88
		(Ghatkhali)	...	...	...	...	...	...	...	NH	NH	NH	0.51	89.37	41.46
SOUTH-WEST BENGAL	HURGHLY	Sourpore	0.03	...	...	...	...	...	...	1	0.03	0.03	0.16	84.35	40.47
		Hooghly	...	...	...	...	...	...	...	NH	NH	NH	0.10	82.05	42.28
		Johannabad	...	...	...	...	...	...	...	NH	NH	NH	0.31	81.57	44.44
	BARDWAN	Gulna	0.20	...	...	...	...	...	...	1	0.20	0.20	0.04	84.32	43.40
		Burdwan	0.40	...	...	...	...	...	...	1	0.40	0.40	0.03	84.63	47.46
		Gulna	...	...	...	...	...	...	...	NH	NH	NH	0.37	84.34	47.46
		Raipur	0.10	...	...	...	...	...	...	1	0.10	0.10	0.15	80.84	45.31
	BANKURA	Manik	0.41	...	...	...	...	...	...	2	0.41	0.41	0.10	82.21	?
		Bankura	...	...	...	...	...	...	...	NH	NH	NH	?	82.21	?
		Hatpura	...	...	...	...	...	...	...	NH	NH	NH	0.34	87.78	48.34
SOUTH-WEST BENGAL	HOORHODABA	Malda	0.05	...	...	...	...	...	...	1	0.05	0.05	0.03	80.36	41.46
		Khatia	...	...	...	...	...	...	...	NH	NH	NH	0.28	80.36	41.46
		Jadon	...	...	...	...	...	...	...	NH	NH	NH	0.40	40.06	45.51
		Khatipore	...	...	...	...	...	...	...	NH	NH	NH	?	89.97	?
		Anda	...	...	...	...	...	...	...	NH	NH	NH	?	85.14	?
		Gangajalghati	...	...	...	...	...	...	...	NH	NH	NH	?	85.14	?
		Khatipore	...	...	...	...	...	...	...	NH	NH	NH	?	83.29	?
	HOORHODABA	Yenomathi	...	...	...	...	...	...	...	NH	NH	NH	?	82.76	?
		Ho. Boory	0.13	0.10	...	...	...	...	...	2	0.23	0.23	0.08	82.38	43.40
		Hatpura	0.76	...	...	...	...	...	...	1	0.76	0.76	0.10	84.31	45.31
SOUTH-WEST BENGAL	NADIA	Saipur	...	0.20	...	...	...	...	...	1	0.20	0.20	0.30	73.56	40.47
		Saipur	...	1.19	...	...	...	...	...	1	1.19	1.19	0.05	87.49	47.46
		Marasai	...	...	...	...	...	...	...	NH	NH	NH	?	85.40	?
	KHOULNA	Baranaghat	...	...	...	...	...	...	...	NH	NH	NH	?	85.40	44.37
		Kishinagar	0.20	...	...	...	...	...	...	1	0.20	0.20	0.24	85.40	44.37
		Choudhury	...	...	...	...	...	...	...	NH	NH	NH	0.31	81.78	40.48
		Meherpur	...	...	...	...	...	...	...	NH	NH	NH	0.25	47.08	40.48
	KHOULNA	Koobha	...	...	...	...	...	...	...	NH	NH	NH	0.00	84.80	40.48
		Koobha	...	...	...	...	...	...	...	NH	NH	NH	0.17	83.00	42.78
		Sathkha	0.48	...	...	...	...	...	...	1	0.48	0.48	0.25	87.81	44.30
SOUTH-WEST BENGAL	JAMSHEDPUR	Magdhat	...	...	...	...	...	...	...	NH	NH	NH	0.25	80.31	40.73
		Khatia	...	...	...	...	...	...	...	NH	NH	NH	0.28	85.84	45.78
		Nakipuri	...	0.20	...	...	...	...	...	1	0.20	0.20	0.28	78.01	?
		Kamrai	...	...	...	...	...	...	...	NH	NH	NH	?	83.78	?
	JAMSHEDPUR	Narail	...	...	...	...	...	...	...	NH	NH	NH	0.04	81.45	46.10
		Jamshedpur	...	...	...	...	...	...	...	NH	NH	NH	0.34	80.40	45.31
		Jamshedpur	...	...	...	...	...	...	...	NH	NH	NH	0.21	84.10	45.31
		Magdhat	...	...	...	...	...	...	...	NH	NH	NH	0.16	43.44	40.48
SOUTH-WEST BENGAL	MOORHODABA	Hongkong	...	...	...	...	...	...	...	NH	NH	NH	0.28	44.86	40.47
		Kandi	0.30	...	...	...	...	...	...	1	0.30	0.30	0.11	84.39	45.31
		Barkhampore	0.40	...	...	...	...	...	...	1	0.40	0.40	0.41	80.27	40.48
		Lalanch	...	...	...	...	...	...	...	NH	NH	NH	0.20	83.07	40.48
	MOORHODABA	Akshay	...	...	...	...	...	...	...	NH	NH	NH	0.12	85.37	40.48
		Jungpore	0.40	...	...	...	...	...	...	1	0.40	0.40	0.04	81.81	40.48
		Jungpore	...	0.00	...	...	...	...	...	1	0.00	0.00	0.10	83.38	40.48
		Akshay	...	...	...	...	...	...	...	NH	NH	NH	?	81.70	?
	MOORHODABA	Pattabadi	...	...	...	...	...	...	...	?	?	?	?	?	?
		Pattabadi	...	...	...	...	...	...	...	?	?	?	?	?	?
SOUTH-WEST BENGAL	CHITTAGONG	Cox's Bazar	...	0.04	0.20	0.23	...	...	...	2	1.27	1.27	1.00	129.43	131.30
		Chittagong	...	...	0.02	1.30	0.06	...	...	2	1.37	1.37	0.90	108.08	111.78
		Assubdia	...	...	1.30	...	...	...	...	1	0.75	0.75	?	81.41	?
	CHITTAGONG	Satpara	...	...	...	0.11	...	...	...	1	0.11	0.11	?	81.41	?
		Satpara	...	...	...	...	...	...	...	1	0.11	0.11	?	81.41	?
	CHITTAGONG	Samrat	0.08	...	...	...	...	...	...	1	0.08	0.08	1.00	83.72	41.70
		Samrat	...	0.20	...	...	...	...	...	1	0.20	0.20	1.00	77.71	?
	CHITTAGONG	Samrat	...	...	...	...	...	...	...	NH	NH	NH	1.33	79.01	40.48
		Samrat	...	...	...	...	...	...	...	NH	NH	NH	0.97	82.01	40.48
		Samrat	...	...	...	...	...	...	...	NH	NH	NH	0.91	85.74	40.48
	CHITTAGONG	Samrat	...	...	...	...	...	...	...	NH	NH	NH	1.00	84.91	40.48
		Samrat	...	...	...	...	...	...	...	NH	NH	NH	1.00	84.91	40.48

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 7th of November 1890—contd.

[illegible]

## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 7th of November 1890—continued.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May 1890.	Average rainfall from 15th May to date.
			Saturday, 1st November.	Sunday, 2nd November.	Monday, 3rd November.	Tuesday, 4th November.	Wednesday, 5th November.	Thursday, 6th November.	Friday, 7th November.	Number of rainy days.	of Rainfall week.				
NORTH BENGAL—continued.	Dhanshetpur...	Motihari	...	...	...	...	...	...	...	Nil	Nil	Nil	Nil	72.80	44.00
		Bertish	...	...	...	...	...	...	...	Nil	Nil	Nil	Nil	64.80	42.00
		Bagaha	...	...	...	...	...	...	...	Nil	Nil	Nil	Nil	50.30	...
	Sargul	Gopalgungo	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	52.07	42.34
		B...	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	50.54	43.01
		Chuprah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.02	48.27	33.71
		Duxer	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	52.47	41.45
		Duxer	...	...	...	...	...	...	...	Nil	Nil	Nil	Nil	43.14	29.08
	Shahabad	Blakomah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	41.71	40.19
		Blakomah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	44.70	39.75
		Arrah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.04	60.00	33.56
		Mohania	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Mohania	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
SOUTH BENGAL.	Gya	Anuragabad	...	...	...	...	...	...	...	Nil	Nil	Nil	0.13	50.40	41.01
		Gya	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	40.04	41.79
		Nowadah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.00	54.51	30.00
		Jhansabad	...	...	...	...	...	...	...	Nil	Nil	Nil	0.14	43.35	40.00
		Arwal	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
	Patna	Isanpore	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Isanpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	50.02	47.14
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	42.13	40.79
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.13	46.93	41.05
		Buxar	...	...	...	...	...	...	...	Nil	Nil	Nil	0.10	45.23	39.11
CENTRAL BENGAL.	Monghyr	Benares	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	44.29	39.30
		Monghyr	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	51.75	43.50
		Jamul	...	...	...	...	...	...	...	Nil	Nil	Nil	0.01	40.28	42.78
		Gopra	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Shikhpura	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
	North Bhagalpore	Bhagalpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	50.77	41.05
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	42.11	43.50
		Kalyan	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Bongson	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Bongson	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
SOUTH BENGAL.	North Bengal	Rajmahal	...	...	...	...	...	...	...	Nil	Nil	Nil	0.01	50.00	41.00
		Unda	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	41.72	41.00
		Purnea	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	74.16	44.80
		Nya. Dhamra	...	...	...	...	...	...	...	Nil	Nil	Nil	0.07	74.11	47.41
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.00	47.53	47.44
	Bhagalpore	Jamul	...	...	...	...	...	...	...	1	1.15	1.15	0.10	70.45	47.45
		Bhagalpore	...	...	...	...	...	...	...	1	1.50	1.50	...	...	...
		Bhagalpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	55.35	40.44
		Bhagalpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.15	40.35	47.00
		Bhagalpore	...	...	...	...	...	...	...	1	0.05	0.05	0.15	48.30	40.00
SOUTH BENGAL.	Bhagalpore	Mahadi Hills	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	50.00	47.00
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
	Bhagalpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
SOUTH BENGAL.	Bhagalpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
	Bhagalpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
SOUTH BENGAL.	Bhagalpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
	Bhagalpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	...	...	...

Explanation.—...indicate that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall column are left blank.

CALCUTTA, the 11th November 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, THE 7TH  
OF NOVEMBER 1890.**

Weather conditions in the south of the Bay have been unsettled during almost the whole week in consequence of the low pressure which has obtained there from day to day. The effect of this slight disturbance has been felt in the north of the Bay and in parts of Bengal and Orissa, especially the latter, where skies have been overcast and moderately heavy general rain has fallen. At the end of the previous week the depression, which appeared to be approaching the Malabar coast, became more diffused, owing to the fall of pressure in the north of the Bay, and the squally weather subsided; but about the middle of the present week there was a further slight intensification, and this kept up the moist and cloudy weather over the whole Bay and Lower Bengal. Squalls again increased in force in the south of the Bay, especially in the Orissas, where heavy rain was falling; but, as before, the disturbance failed to concentrate, and disappeared without a definite depression having crossed the coast. Cool clear weather prevailed in the northern districts of Bengal with occasional very light showers, and though considerable amounts of cloud were reported from the stations in the southern districts since though moist weather was generally experienced, except on Saturday, the 1st of November, when light showers fell in South-West Bengal and heavier ones in Orissa and Chittagong. The rainfall continued in the south of Orissa till the end of the week, and in Chittagong for two or three days. As pressure has been highest in the northern districts and diminished towards the low-pressure area in the south of the Bay, steady light northerly winds continued till the 7th, when directions were more irregular.

*Pressure*—Has undergone the usual small oscillations, but has been always above the normal. Mean excess varies from .03 inch in Orissa, South-West Bengal, and Chutia Nagpur, to .07 inch at a few of the more northern stations.

*Temperature*—Has been very nearly normal in Orissa, slightly above in parts of South-West Bengal, North Bengal, and Chutia Nagpur, and considerably below elsewhere. The lowest minimum temperatures were registered in Bahar in the early part of the week, in South-West Bengal on the 5th, and elsewhere on the 6th and 7th. In the table below giving the weekly means at representative stations it will be seen that the day temperatures have been considerably below the normal at Darjeeling and Dacca, but that elsewhere the defect has occurred chiefly at night. The mean for North Bahar is below the normal by 1.6°, for East Bengal by 1.4°, and for South Bahar by .7°, while for the other districts it is either normal or slightly below.

*Table showing the excess or defect of the actual mean temperature from the normal for the week ending 7th November 1890.*

	Normal mean maximum temperature for the week ending 7th November.	Actual mean maximum temperature for the week ending 7th November 1890.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 7th November.	Actual mean minimum temperature for the week ending 7th November 1890.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 7th November.	Actual mean daily temperature for the week ending 7th November 1890.	Variation of actual mean from the normal.
Cuttack	85.7	84.8	-1.1	71.0	70.5	-1.5	78.4	78.8	+0.3
Calcutta	83.2	82.4	-0.8	69.5	69.1	-1.4	76.3	75.3	-1.0
Dacca	83.2	82.7	-1.5	70.2	69.0	-1.2	77.8	75.3	-2.5
Burdwan	86.5	84.4	-2.1	68.9	68.1	-0.8	76.7	76.0	-0.7
Patna	84.8	81.6	-3.2	64.9	64.7	-1.2	74.0	73.2	-0.8
Gya	85.1	83.0	-2.1	64.0	63.8	-1.2	74.8	74.5	-0.3
Surmoo	84.5	81.6	-2.9	63.0	62.7	-1.3	73.6	72.1	-1.5
Rasoribagh	79.0	77.7	-1.3	61.9	61.1	-0.8	70.5	69.0	-1.5
Darjeeling	80.0	80.0	0.0	61.4	60.9	-0.5	69.1	67.4	-1.7

*Rainfall* has been chiefly confined to Orissa, but light showers fell in all districts, except North Bahar, in the early part of the week. The average fall for Orissa is 1.42 inches, almost double the normal; for South-West, East and North Bengal about .2 inch; for South Bahar .09 inch, and Chutia Nagpur .02 inch. Defect in East Bengal is .52 inch and in Chutia Nagpur .12 inch. The continued showery weather in the south of Orissa is shown by the number of rainy days at Pooree being 6 with a total fall of 2.28 inches, and at False Point 4 with a total fall of 3.69 inches. The heaviest fall reported is 3.01 inches at Banki on the 1st.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 7th of November 1890:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 1st May 1890.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average num-ber in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	80°3	60°5	82°5	78°0	77°1	0	1°42	0°75	+0°67	2°1	0°7	+1°4	1°42	0°75	63°19	51°59
South-West Bengal ...	80°3	63°7	83°0	69°5	76°0	-0°3	0°17	0°84	-0°67	0°5	0°4	+0°1	0°17	0°24	56°43	51°24
East Bengal ... ..	84°2	61°5	82°7	67°4	75°0	-1°4	0°17	0°00	-0°17	0°6	0°7	-0°3	0°17	0°60	71°43	72°22
North Bengal ... ..	85°6	57°8	83°0	64°8	73°2	-0°5	0°23	0°07	+0°15	0°4	0°7	+0°2	0°23	0°07	66°02	58°74
North Bihar ... ..	83°2	55°2	81°1	62°6	71°9	-1°4	Nil	0°01	-0°01	0°0	0°1	-0°1	Nil	0°01	64°38	47°21
South Bihar ... ..	84°4	59°0	83°5	63°9	73°2	-0°7	0°00	0°04	+0°04	0°1	0°2	-0°1	0°00	0°05	54°50	45°55
Chota Nagpur ... ..	80°3	60°5	77°8	61°7	69°2	0°	0°03	0°11	-0°16	0°2	0°4	-0°3	0°02	0°14	40°04	48°44

\* Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL;

The 11th November 1890.

C. LITTLE,

Offg. Meteorological Reporter to the Govt. of Bengal.



Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of October 1890.

	Inches.	Date.	Hour.
The mean pressure of the month ...	29.843		
The average pressure of October from 24 years' registers ...	29.832		
The highest pressure in the month ...	30.024	28th	10
The lowest pressure in the month ...	29.653	14th	16
The range of pressure ...	0.371		
Hours.			
The total number of hours of bright sunshine during the month ...	208.7		
The maximum possible number of hours of sunshine ...	359.1		
°			
The mean temperature of the month ...	79.1		
The average temperature of October from 24 years' registers ...	81.5		
The highest temperature in the month ...	89.7	3rd	
The lowest temperature in the month ...	66.9	27th.	
The range of temperature during the month ...	22.8		
The mean daily range of temperature ...	11.4		
The greatest range of temperature in one day ...	16.6	27th.	
Per cent.			
The mean humidity of the month ...	85		
The average humidity of October from 24 years' registers ...	79		
Inches.			
The mean vapour pressure of the month ...	0.846		
The average vapour pressure of October from 9 years' registers ...	0.854		
The mean cloud proportion of the month ...	3.94		
The average cloud proportion of October from 13 years' registers ...	4.14		
The total rainfall of the month ...	8.54		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground) ...	6.43		
The average fall of October from 48 years' registers ...	5.61		
The greatest fall in 24 hours ...	2.91	14th.	
Days.			
The number of rainy days in the month ...	11		
The average number of rainy days in October from 24 years' registers ...	10		
°			
The mean maximum equilibrium temperature of solar radiation during the month ...	137.1		
The mean difference of sun and air temperatures ...	52.5		
The greatest sun temperature ...	153.0	10th.	
The greatest excess of sun over air temperature ...	64.2	10th.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth ...	70.3		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground ...	3.2		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature ...	6.4	25th and 27th.	
Miles.			
The mean movement of the wind per day ...	45.7		
The greatest movement of the wind in one day ...	161.0	14th.	
The greatest movement of the wind in one hour ...	12.0	22nd noon to 1 P.M.	
The number of hours with winds from each of the 8 points—			
N. 62, N.E. 30, E. 81, S.E. 72, S. 26, S.W. 58, W. 28, N.W. 47, Calm 340.			

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently equal; and finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer which is the standard of reference at the present Observatory.

J. H. GILLILAND,

METEOROLOGICAL OFFICER, INDIA;  
Calcutta, the 10th November 1890.

For Meteorological Reporter to the Govt. of India.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
2nd to 8th November 1890.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 39° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour pressure.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Nov.	2nd	140.7	7.5	29.908	75.8	82.0	13.8	68.2	71.6	0.721	66.5	81	ENE and calm	89	Nil	Partially cloudy, P.
"	3rd	143.5	6.4	29.941	76.1	82.3	12.7	69.6	69.9	0.649	66.4	78	ENE and calm	61	"	Partially cloudy, P.
"	4th	140.0	9.9	29.979	74.8	82.7	16.1	66.6	68.9	0.623	65.4	74	ENE and calm	52	"	Chiefly clear, P.
"	5th	139.4	6.4	29.990	74.2	81.8	16.0	65.8	69.6	0.664	67.0	80	ENE and calm	18	"	Partially cloudy P.
"	6th	140.8	8.2	29.947	74.5	81.5	14.4	67.1	70.7	0.702	68.7	83	Calm and variable...	9	"	Chiefly clear, P.
"	7th	143.8	8.0	29.944	74.9	81.2	13.5	67.7	71.0	0.708	68.9	83	Calm and variable...	23	"	Chiefly clear, P.
"	8th	138.7	6.5	29.963	76.1	81.3	12.5	68.8	72.2	0.739	70.2	83	Calm	5	"	Partially cloudy, P.

The mean pressure of the seven days ... 29.957  
The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 29.923

The total number of hours of bright sunshine ... 62.9  
The maximum possible number of hours of sunshine ... 78.3

The mean temperature of the seven days ... 75.2  
The average temperature of the corresponding period for 24 years, S.-G.'s Office ... 77.9  
The extreme variation of temperature ... 16.9  
The maximum temperature ... 82.7

The highest velocity of the wind in one hour ... 9

The highest pressure of wind on one square foot ... ?

The mean relative humidity ... 80

The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... 74

The total fall of rain from 2nd to 8th November 1890 ... Nil

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.26

The total fall from 1st January to 8th November 1890 ... 61.25

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 64.78

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

P., dew.

N.B. - In the weekly report from 5th to 11th October 1890, read "76.8" for "66.8" as dew point of the 5th October 1890.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;  
Calcutta, the 10th November 1890.

## Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of October 1890.

		Inches.	Date.
The mean pressure at 10 A.M. during the month	...	29.805	
The mean temperature at 10 A.M. during the month	...	82.7	
The highest temperature during the month	...	92.0	3rd.
The lowest temperature during the month	...	67.9	27th.
The absolute range of temperature during the month	...	24.1	
The mean daily range of temperature during the month	...	11.9	
The greatest range of temperature in one day during the month	...	17.2	27th.
The mean 10 A.M. humidity during the month	...	76	%
The mean 10 A.M. vapour pressure during the month	...	.839	Inches.
The total rainfall of the month	...	8.89	
The greatest fall in 24 hours	...	2.65	14th.
The number of rainy days in the month	...	9	Days.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;

The 10th November 1890.

## Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 2nd to 8th November 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour pressure at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
November...	2nd	29.971	76.4	83.4	14.1	69.3	79.2	73.1	.734	70.0	74	...
"	3rd	.997	76.8	83.7	13.9	69.8	79.8	69.6	.583	62.6	58	...
"	4th	30.089	76.6	84.0	16.7	68.2	80.1	70.1	.603	64.2	58	...
"	5th	.051	75.0	83.1	16.8	66.4	77.4	69.6	.620	65.1	69	...
"	6th	.016	75.1	82.1	14.1	68.0	79.6	71.6	.669	67.8	66	...
"	7th	.016	76.4	83.9	15.1	68.8	78.6	70.1	.634	66.2	64	...
"	8th	.066	76.4	82.9	13.1	69.8	79.8	72.6	.706	68.8	69	...

The mean 10 A.M. pressure of the seven days	...	...	Inches.
The mean temperature of the seven days	...	...	76.1
The extreme variation of temperature	...	...	18.1
The maximum temperature	...	...	84.9

The mean 10 A.M. relative humidity of the seven days	...	...	%
	...	...	65

The total fall of rain from 2nd to 8th November 1890	...	...	Inches.
	...	...	Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;

The 10th November 1890.

## MEMORANDUM.

Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 18th October 1890.

## BIRTHS.

The births registered during the week ending with Saturday, the 18th October 1890, in twenty-seven principal towns of Bengal correspond to an annual rate of 25 per 1,000 of the aggregate population of those towns, which is 1,061,674. This rate is '9 higher than the average rate of the corresponding week of the past five years, and is also higher than the rate of the corresponding week of any of the past five years except 1886 and 1889—*vide* the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years, 1885-89.	1890.
Ratio of births per 1,000 of the population per annum	24.4	26.5	22.8	19.2	23.5	24.1	25.0

The births registered in each of the last four weeks in each of the twenty-seven principal towns correspond to the following rates per 1,000 of the population:—

TOWNS.	WEEKS ENDING—				TOWNS.	WEEKS ENDING—			
	27th Sept. 1890.	4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.		27th Sept. 1890.	4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.
Burdwan	16.6	35.4	13.7	31.0	Narainpur	41.4	57.1	40.7	4.8
Midnapore	17.1	17.0	18.9	7.7	Chittagong	17.7	5.4	3.4	17.6
Hughli and Chinsurah	18.1	54.5	61.9	40.2	Dumlich	27.0	10.4	27.0	27.0
Berampore	41.2	47.1	40.1	28.6	Ratna City	17.4	19.5	12.5	14.2
Ulterpara	38.3	8.4	37.7	47.2	Gya	20.0	26.0	30.7	29.1
Howrah	22.9	25.2	22.7	24.0	Arrah	12.1	47.9	45.3	20.3
Bah	17.4	29.1	31.8	28.1	Mozufferpore	24.3	24.5	29.3	21.9
Krishnagar	17.0	26.3	9.3	18.9	Durghanga	33.8	40.9	43.3	37.0
Ranaghat	24.0	14.0	12.0	12.0	Chupra	13.1	38.5	48.3	40.8
Santipore	8.2	23.3	17.5	8.8	Bhagalpore	29.0	26.2	42.5	14.3
Jessore	13.2	6.1	6.1	6.1	Monkhyr	30.3	37.9	58.8	37.1
Rampore Baulsah	27.0	63.1	39.6	31.5	Purneah	10.4	10.4	30.9	8.0
Darjiling	44.5	22.2	61.9	51.9	Poori	13.6	14.7	19.0	10.8
Dacca	21.6	13.0	18.8	24.0	Total	25.1	22.7	29.5	23.0

It will be seen that last week the highest birth-rate was returned from Darjiling (51.9) and the lowest from Jessore (6.1).

## DEATHS.

The deaths registered during the week under review correspond to an annual rate of 22.8 per 1,000 of the population. The rate of the week is 5.9 below the average rate of the corresponding week of the past five years, and also below the rate of the corresponding week of any of the past five years except 1888—*vide* the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years, 1885-89.	1890.
Ratio of deaths per 1,000 of the population per annum	21.5	27.0	24.3	31.9	27.2	23.7	22.8

The deaths registered in each of the last four weeks in each of the twenty-seven towns correspond to the following rates per 1,000 of the population:—

TOWNS.	WEEKS ENDING—				TOWNS.	WEEKS ENDING—			
	27th Sept. 1890.	4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.		27th Sept. 1890.	4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.
Burdwan	21.4	30.6	24.4	22.0	Narainpur	4.1	10.6	37.3	24.5
Midnapore	16.0	13.6	27.0	12.4	Chittagong	18.4	6.6	16.4	14.1
Hughli and Chinsurah	21.3	21.0	27.0	20.8	Dumlich	18.4	7.7	15.4	11.8
Berampore	40.1	20.4	45.1	47.1	Ratna City	18.6	14.9	20.6	15.6
Ulterpara	18.0	28.3	28.3	32.7	Gya	30.0	47.1	54.0	60.1
Howrah	14.9	18.9	18.8	17.9	Arrah	23.5	13.3	23.0	13.0
Bah	20.1	24.0	23.1	24.0	Mozufferpore	15.8	23.5	23.3	30.0
Krishnagar	18.0	18.0	6.7	7.6	Durghanga	33.0	26.6	26.7	20.6
Ranaghat	6.0	0.0	12.0	34.0	Chupra	11.1	31.3	27.8	20.1
Santipore	18.3	3.3	3.3	3.3	Bhagalpore	20.6	14.6	14.0	17.5
Jessore	6.1	18.4	20.0	22.0	Monkhyr	22.0	20.7	20.9	21.7
Rampore Baulsah	24.8	20.6	44.7	42.0	Purneah	6.9	10.4	17.5	6.0
Darjiling	27.0	22.2	44.5	61.9	Poori	14.7	25.2	42.0	25.2
Dacca	21.1	17.5	18.2	15.2	Total	23.4	23.0	22.9	22.5

It will be seen that last week the highest mortality occurred in the town of Gya (60.1) and the lowest in Santipore (3.5). No deaths were registered during the week in Jessore town.

Measured by last week's mortality, the highest annual death-rates from cholera, fever, and other causes occurred in the following towns:—

Cholera.		Fever.		Other causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Moufferpore ...	13.4	Darjiling ...	51.9	Monghyr ...	13.7
Gya ...	8.0	Gya ...	34.8	Gya ...	13.3
Patna City ...	4.6	Rampore Beaulah ...	23.3		
		Serampore ...	23.6		
		Bali ...	21.1		

The total mortality from the several registered death-causes in the twenty-seven principal towns amounted to 2.2 from cholera, against 3 per 1,000 in the preceding week; .04 from small-pox, against .2; 11 from fever, against 12.7; 3.7 from bowel-complaints, against 2.6; .1 from injury, against .6; and 5.7 from other causes, against 6.1 in the preceding week. The mortality from bowel-complaints is noticeably severe only in the Serampore town, there being eight deaths (16.7 per 1,000 of the population).

The mortality of last week according to Sex, Class, and Age was as follows:—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males ...	24.3	Hindus ...	23.8	Under 1 year ...	176.2
Females ...	21.1	Mahomedans ...	20.8	1 and under 5 years ...	23.6
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population ...	116			5 " 10 " ...	16.5
				10 " 15 " ...	9.3
				15 " 20 " ...	13.5
				20 " 30 " ...	12.8
				30 " 40 " ...	14.5
				40 " 50 " ...	16.2
				50 " 60 " ...	25.6
				60 years and upwards ...	68.0

Detailed information regarding the vital statistics of the twenty-seven principal towns dealt with in the above review will be found in the statement appended.

W. H. GREGG, Dip. Publ. Health, Camb.,

Sanitary Commissioner for Bengal.

The 8th November 1890.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending with Saturday, the 18th October 1890

1	2	3	4	5	6	7	8	9	10	11	12																					
DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			MORTALITY ACCORDING TO—																								
		Males.	Females.	Total.	NUMBER OF—			Ratio of male births to every 100 female births.	DISEASES.							Ratio of deaths per 1,000 of population per annum in the previous week.	SEX.															
					Males.	Females.	Total.		DEATHS FROM—					RATIO PER 1,000 OF POPULATION PER ANNUM.					Males.	Females.	Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population.											
									Cholera.	Small-pox.	Fever.	Howel-complaints.	Injury.	Other diseases.	All causes.		Cholera.	Small-pox.				Fever.	Borel-complaints.	Injury.	Other diseases.	All causes.						
Burdwan	Burdwan	18,469	16,015	34,484	5	16	21	8.3	24.4	32.6	37			13	1		2	18			14.3	1.3		3.1	22.9	24.4	0	6	35.9	19.5	381	
Midnapore	Midnapore	16,937	16,433	33,370	2	3	5	2.1	4.6	7.7	90			1	2		5	8			1.5	3.1		7.7	19.4	27.9	5	3	15.4	8.4	184	
Hughli	Hughli and Chinsurah.	18,938	18,339	37,277	10	14	24	21.2	21.0	42.2	114			12	2		4	18			19.7	3.3		6.2	29.5	27.9	12	5	38.3	19.7	189	
Barrackpore	Barrackpore	13,359	12,837	26,196	2	4	6	15.7	7.0	22.7	200			12	3	1	3	24			22.6	15.7	1.9	5.0	47.1	43.3	13	11	49.9	44.2	113	
	Uttarpara	3,940	1,404	5,344	3	2	5	28.3	19.8	48.1	150			2			2	4			14.8			18.8	37.7	28.3	1	2	17.1	63.3	37	
Howrah	Howrah	53,133	37,460	90,593	31	22	53	12.0	13.6	25.6	95			15	10	1	5	31			8.5	5.7	6	23	17.3	18.3	18	13	17.6	18.0	96	
	Bali	7,838	6,970	14,808	4	4	8	14.9	14.0	28.9	130		1	6				7		3.3	21.4				34.6	28.1	3	4	19.9	39.8	63	
Nadua	Krishnapur	13,363	14,314	27,677	5	5	10	9.4	9.4	18.8	100						4	4						7.4	7.4	1.7	2	2	7.3	7.3	106	
	Kanaghat	4,428	4,653	9,081	3		3	18.0		18.0	No female birth.			3				1	4			18.0			6.0	24.0	12.0	1	2	12.0	33.5	38
Jessore	Santipore	12,709	12,978	25,687	3	2	5	5.5	3.5	9.0	15			1				1	2			1.7			1.7	3.5	3.5			6.5	No male death.	
	Jessore	4,630	3,460	8,090		1	1		6.1	6.1	No male birth.															30.6						
Rajshahi	Bangore Beaulah	10,700	9,033	19,733	7	3	10	12.4	13.1	25.5	110			10	3	1	2	16			23.3	7.9	2.6	32	42.0	41.7	3	3	33.6	44.1	63	
Darjiling	Darjiling	4,479	2,439	6,918	3	1	4	44.3	7.4	51.7	600			7				7			21.9				31.9	41.0	3	4	34.1	31.3	46	
Dacca	Dacca	42,763	37,379	80,142	21	16	37	11.6	10.4	22.0	131		2	3	4		15	28	1.3		0.3	1.9		2.7	18.9	18.2	19	18	12.1	25.0	40	
	Narainpur	7,865	4,968	12,833	5	1	6	28.1	6.1	34.2	590			2	3		2	6			8.2	8.2		8.2	24.2	37.3	5	1	34.2	18.3	325	
Chittagong	Chittagong	13,340	5,790	19,130	1	3	4	2.3	7.0	9.3	33			2	4			6			4.7	9.4			14.1	16.8	6		23.4		No female death.	
Tipperah	Comilla	5,133	5,353	10,486	5	2	7	19.1	7.7	26.8	250			1	2			3			3.3	7.7			11.6	18.6	2	1	13.5	9.7	128	
Patna	Patna City	75,762	51,473	127,235	43	21	64	7.5	6.8	14.3	160		14	17	6		12	49	4.6		5.5	1.9		3.9	15.9	21.4	31	18	30.5	11.6	178	
Gya	Gya	48,320	37,831	86,151	30	28	58	20.4	18.1	38.5	207		13	51	6		18	38	8.9		34.8	4.1		12.3	66.1	64.9	53	36	70.6	40.6	143	
Shahabad	Arrah	30,500	24,603	55,103	3	9	12	5.6	19.7	25.3	88		1	3			1	10	1.3		8.6			1.2	18.0	23.9	8	3	18.3	4.3	420	
Muzafferpore	Muzafferpore	13,084	19,658	32,742	11	7	18	13.4	8.6	22.0	157		11	18	6		5	33	13.4		11.1	7.3		6.1	38.9	34.8	21	11	47.3	29.1	160	
Durgha	Durgha	33,774	33,322	67,096	32	15	47	25.2	11.5	36.7	213		2	12	6		5	26	2.4		9.4	4.7		3.8	20.5	23.7	14	13	31.6	19.3	112	
Saran	Chupra	25,118	24,524	49,642	18	21	39	19.1	21.1	40.2	90		1	4	6		2	20	1.0		4.0	6.0		9.1	30.1	37.2	10	18	36.7	18.6	108	
Bhagalpore	Bhagalpore	29,640	27,813	57,453	11	7	18	10.0	6.3	16.3	181			13	5		3	19			11.8	2.7		2.7	17.2	14.5	10	9	17.4	15.5	106	
Monghyr	Monghyr	28,354	29,385	57,739	15	26	41	13.6	23.3	36.9	67			9	1		14	24			9.1	4		12.7	21.7	29.8	9	16	18.0	20.0	62	
Purneah	Purneah	8,463	6,553	15,016	2		2	6.9		6.9	No female birth.			2				2			5.9				6.9	17.3	1	1	6.1	7.0	77	
Poori	Poori	13,247	11,637	24,884	8	2	10	12.6	4.3	16.9				4	4		4	12			8.6	8.4		5.4	23.3	42.0	4	8	15.7	36.1	43	
Total		820,848	810,368	1,631,216	273	277	550	15.4	11.0	26.4	118	43	1	214	75	3	117	465	2.2	10	11.0	3.7	1	3.7	29.4	25.3	266	207	26.7	21.1	118	

MORTALITY ACCORDING TO—

DISTRICTS.	NAMES OF MUNICIPALITIES.	Class.								Age.																											
		UNATHAKOTS—				RATIO PER 1,000 OF POPULATION PER ANNUM.				DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.																	
		Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.	Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 25 years.	25 and under 30 years.	30 and under 35 years.	35 and under 40 years.	40 and under 45 years.	45 and under 50 years.	50 and under 55 years.	55 and under 60 years.	60 years and upwards.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 25 years.	25 and under 30 years.	30 and under 35 years.	35 and under 40 years.	40 and under 45 years.	45 and under 50 years.	50 years and upwards.
Burdwan	Burdwan	11	4	...	...	...	24.2	20.8	...	...	3	2	3	1	1	...	1	1	3	1	236.4	46.1	44.6	30.7	16.9	...	7.5	11.4	63.5	35.1							
Midnapore	Midnapore	7	1	...	...	...	14.0	...	...	...	3	1	...	...	2	...	1	...	1	...	210.0	33.1	...	...	14.4	...	14.0	...	29.4								
Hughli	Hughli and Chinsurah	10	3	...	...	...	30.9	25.3	...	...	5	2	...	...	3	4	3	1	4	194.3	46.9	...	...	...	8.4	36.4	37.4	28.0	100.5								
Barrackpore	Barrackpore	24	...	...	...	...	49.5	...	...	...	...	4	3	1	3	4	2	1	3	...	115.2	62.1	23.4	21.5	39.0	41.3	30.5	27.3	112.1								
	Uttarpara	2	1	...	...	...	29.3	28.5	...	...	...	...	...	1	...	...	2	...	1	...	...	...	...	119.3	...	...	146.4	...	200.0								
Howrah	Howrah	25	6	...	...	...	10.1	15.1	...	...	5	2	3	...	1	3	2	4	4	8	136.0	16.6	16.5	...	7.1	6.9	5.4	17.7	37.9	110.9							
	Bali	7	...	...	...	...	27.1	...	...	...	...	2	...	3	...	...	...	...	3	...	104.1	...	67.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnanagar	...	4	...	...	...	...	21.1	...	...	2	...	...	...	...	...	...	...	2	...	200.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maddur	Manikhat	3	1	...	...	...	21.5	33.1	...	...	1	1	...	...	...	...	...	...	3	...	251.2	63.4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Santipore	3	...	...	...	...	5.0	...	...	...	1	...	...	...	...	...	...	...	...	1	61.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jessore	Jessore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajshahy	Rampore Benaulah	5	11	...	...	...	26.2	65.3	...	...	1	1	5	...	1	2	4	3	...	1	128.1	36.7	75.0	...	31.5	25.0	67.7	63.6	...	...	...	...	...	...	...	...	...
Darjiling	Darjiling	7	...	...	...	...	79.2	...	...	...	1	2	...	...	...	...	1	1	2	...	424.5	161.7	...	...	...	...	36.3	75.1	426.2	...	...	...	...	...	...	...	...
Dacca	Dacca	13	15	...	...	...	16.8	19.8	...	...	6	2	...	1	...	4	5	1	3	4	219.2	14.1	...	6.8	...	13.6	22.5	6.2	33.8	37.4							
	Narainganj	3	1	...	...	...	41.1	6.4	...	...	...	...	...	...	...	8	...	1	2	1	...	...	...	...	...	58.4	...	87.3	60.5	79.3							
Chittagong	Chittagong	2	4	...	...	...	17.9	15.6	...	...	1	...	...	...	...	2	...	2	1	...	85.4	...	...	...	...	...	22.5	...	44.1	47.9	...						
Tipperah	Cumilla	1	2	...	...	...	6.7	14.1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palna	Palna City	43	7	...	...	...	18.4	8.9	...	...	4	3	3	3	4	9	8	1	4	9	46.3	10.7	9.3	16.3	15.8	16.3	17.9	5.5	14.7	33.3							
Gya	Gya	74	13	...	...	...	63.0	42.0	...	...	12	5	2	3	3	10	10	7	7	26	348.6	65.5	14.9	23.2	29.8	35.3	40.8	37.2	55.4	243.7							
Shahabad	Arrah	7	3	...	...	...	11.7	12.0	...	...	2	...	2	1	...	2	1	1	...	1	90.7	...	50.3	11.8	...	18.2	8.1	11.1	...	16.0	...						
Mounserpore	Mounserpore	23	9	...	...	...	39.8	37.5	...	...	11	2	8	...	1	6	3	...	1	2	56.0	23.7	61.4	...	17.3	24.2	31.4	...	16.9	43.7							
Burhabanga	Burhabanga	10	10	...	...	...	17.2	29.6	...	...	3	0	3	2	1	4	1	2	...	2	167.0	41.0	14.9	19.7	12.9	15.6	4.7	14.0	...	32.0							
Baren	Chepra	14	6	...	...	...	18.4	26.3	...	...	4	...	2	1	2	...	2	3	1	6	142.4	...	17.6	10.4	30.0	...	13.4	17.1	12.6	11.7							
Shahajpore	Shahajpore	12	7	...	...	...	15.7	21.4	...	...	6	3	2	...	1	...	...	...	4	3	261.3	25.8	17.7	...	12.4	...	...	...	...	...	...	...	...	...	...	...	
Monghyr	Monghyr	14	10	...	...	...	16.3	61.4	...	...	10	...	2	1	2	1	2	2	1	4	350.2	...	14.7	9.1	13.6	5.0	11.7	10.3	78.1	58.0							
Purneah	Purneah	3	...	...	...	...	11.3	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poori	Poori	14	...	...	...	...	25.4	...	...	...	3	2	...	...	1	2	1	3	1	1	614.9	23.8	...	...	28.8	79.7	14.3	31.3	25.3	22.8							
Total		347	116	...	...	...	25.8	30.8	...	...	60	43	83	17	21	62	40	25	39	68	176.2	23.8	16.6	9.2	13.5	12.5	14.5	16.1	25.6	68.0							



## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

Statements showing Quantities of Goods carried during the month of July 1890.

## ORISSA CIRCLE.

## TALDUNDA CANAL SYSTEM.

 LENGTH OF CANAL OPEN { TALDUNDA CANAL, 27 MILES.  
 { MACHHONG " 4 "

Number of boats or rafts.	Description.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.	
		Quantity-Tons.		Value.	Quantity.	Value.
		Up.	Down.	Rupess.	Tons.	Rupess.
13	1. Grain ...	96	8	104	104	3,375
...	2. Cotton ...	...	...	...	...	...
3	3. Oilseeds ...	16	...	16	16	1,350
2	4. Salt ...	25	...	25	25	3,500
...	5. Piece-goods ...	...	...	...	...	...
...	6. Metal ...	...	...	...	...	...
33	7. Building materials ...	464	...	464	464	410
13	8. Miscellaneous ...	47	215	262	262	4,550
...	9. Fuel ...	...	...	...	...	...
...	10. Timber ...	...	...	...	...	...
...	11. Bamboos ...	...	...	...	...	...
64	12. Total ...	648	223	871	871	13,185
111 & 21 rafts.	13. Total of same month last year.	153	1,280 & 19,112 No.	1,433 & 19,112 No.	1,426 & 19,112 No.	30,225
		Up.	Down.	Total.	Rs. A.	
14.	Total number of boats plying cargo No.	56	8	64	Total tollage of month—24 + 25 + 26 ...	306 5
15.	Total number of boats plying passenger No.	2	4	6	Total tollage of same month last year ...	656 14
15½.	Do. empty boats ..	31	40	71	Memorandum of Tollage.	
16.	Total registered tonnage, cargo, private Tons	648	223	871		
17.	Total registered tonnage, passenger Tons	13	178	191		
18.	Ton-mileage ...	18,184	6,271	24,455	1. Balance not recovered on the 1st of the month ... 78 1 2. Tollage per month ... 306 5 3. Total ... 384 6 4. Amount credited in the accounts of the month ... 337 9 5. Balance due at the end of the month ... 46 13	
19.	Estimated value of cargo Rs.	9,005	4,180	13,185		
20.	Number of passengers ...	6	1,514	1,520		
21.	Rafts, bamboos C. ft.	...	...	...		
22.	Do., bullahs ..	...	...	...		
23.	Estimated value of rafts Rs.	...	...	...		
24.	Tollage on boats ..	123-11-0	182-10-0	306-5-0		
25.	Compounded tollage on boats Rs.	...	...	...		
26.	Tollage on rafts ..	...	...	...		
27.	Total tollage on boats per ton-mile lta.	...	...	0-0-2-40		
28.	Total tollage on rafts per 100 cubic feet Rs.	...	...	...		

## KENDRAPARA CANAL SYSTEM.

LENGTH OF CANAL OPEN, 75 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.			Quantity.	Value.	
		Up.	Down.	Total.	Tons.	Rupces.	
187	1. Grain ...	717	1,476	2,193	2,193	1,30,480	
4	2. Cotton ...	110	.....	110	110	30,000	
27	3. Oilseeds ...	.....	802	802	802	1,01,700	
21	4. Salt ...	66	16	82	82	6,770	
	5. Piece-goods ...	.....	.....	.....	.....	.....	
1	6. Metal ...	6	.....	6	6	1,500	
83	7. Building materials ...	3	407	410	410	7,370	
113	8. Miscellaneous ...	532	495	1,027	1,027	1,81,550	
15	9. Fuel ...	83	.....	83	83	220	
6 rafts	10. Timber ...	.....	330 c. ft.	330 c. ft.	330 c. ft.	85	
1 "	11. Bamboos ...	.....	25 "	25 "	25 "	5	
491 & 7 rafts	12. Total ...	{ 1,517	3,196 & 355 c. ft.	4,713 & 355 c. ft.	{ 4,713 & 355 c. ft.	{ 4,59,680	
326 & 4 rafts.	13. Total of same month last year.	{ 1,546	1,750 & 9,762 No.	3,296 & 9,762 No.	{ 3,235 & 9,762 No.	{ 3,85,110	
14. Total number of boats plying cargo No.		Up. 192	Down. 209	Total. 401	Total tollage of month— 24 + 25 + 26 ...		Rs. A. P.
15. Total number of boats plying passenger No.		37	57	94			5,831 6 1
15. Ditto empty boats "		241	149	390			
16. Total registered tonnage, cargo, private Tons		2,769	5,036	7,805	Total tollage of same month last year ...		5,142 8 7
16. Ditto Government ditto "		.....	.....	.....			
17. Total registered tonnage, passenger Tons		1,813	1,748	3,561			
17. Ditto empty boats "		2,815	749	3,564	Memorandum of Tollage.		
18. Ton-mileage ...		2,75,178	3,37,651	6,12,829			
19. Estimated value of cargo Rs.		1,96,730	2,62,860	4,59,590			
20. Number of passengers ...		1,272	3,736	5,008	1. Balance not recovered on the 1st of the month ...		3,539 12 11
21. Rafts, bamboos C. ft.		.....	25	25			
22. Do., timbers "		.....	330	330			
23. Estimated value of rafts Rs.		.....	90	90	2. Tollage per month ...		5,831 6 1
24. Tollage on boats "		2,516-2-11	3,308-3-8	5,824-6-7			
25. Compounded tollage on boats Rs.		.....	.....	.....			
26. Tollage on rafts "		.....	6-15-6	6-15-6	3. Total ...		9,371 3 0
27. Total tollage on boats per ton-mile		.....	.....	0-0-1-8			
28. Total tollage on rafts per 100 cubic feet		.....	.....	1-15-5			
					4. Amount credited in the accounts of the month ...		4,092 8 2
					5. Balance due at the end of the month ...		5,278 10 10

## HIGH LEVEL CANAL, RANGE I.

LENGTH OF CANAL OPEN, 33 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.	
		Quantity—Tons.			Value.	Quantity.		
		Up.	Down.	Total.	Rupces.	Tons.		
139	1. Grain ...	538	4	542	25,000	542	25,000	
1	2. Cotton ...	.....	4	4	900	4	900	
15	3. Oilseeds ...	100	...	100	8,200	100	8,200	
64	4. Salt ...	.....	151	151	12,370	151	12,370	
..	5. Piece-goods ...	.....	.....	.....	.....	.....	.....	
..	6. Metal ...	.....	.....	.....	.....	.....	.....	
13	7. Building materials ...	48	54	102	390	48	3 0	
49	8. Miscellaneous ...	66	83	149	20,620	149	20,620	
4	9. Fuel ...	29	.....	29	80	29	80	
...	10. Timber ...	.....	.....	.....	.....	.....	.....	
...	11. Bamboos ...	.....	.....	.....	.....	.....	.....	
285	12. Total ...	781	296	1,077	67,560	1,023	67,510	
305 & 6 rafts.	13. Total of same month last year ...	{ 917 & 20,025 No.	226 .....	1,143 & 20,025 No.	{ 71,690 {	1,143 & 20,025 No.	{ 71,690	

	Up.	Down.	Total.	Total tollage of month— 24 + 25 + 26 ...		Rs. A. P.
14. Total number of boats ply- ing cargo No.	196	89	285			1,043 10 9
15. Total number of boats ply- ing passenger No.	12	12	24	Total tollage of same month last year ...		883 8 5
15½. Do. empty boats ..	63	155	218	Memorandum of Tollage.		
16. Total registered tonnage, cargo, private Tons	996	486	1,482			
16½. Ditto Govt. stores ..	.....	218	218	Rs. A. P.		
17. Total registered tonnage, passenger Tons	344	524	868	1. Balance not recovered on the 1st of the month ...		295 11 3
17½. Do. empty boats ..	298	732	1,030			
18. Ton-mileage ...	60,778	48,918	1,15,696			
19. Estimated value of cargo Rs.	35,970	31,590	67,560	2. Tollage per month ...		1,043 10 9
20. Number of passengers ...	323	611	934			
21. Rafts, bamboos C. ft.	.....	.....	.....			
22. Do., bullocks ..	.....	.....	.....	3. Total ..		1,339 6 0
23. Estimated value of rafts Rs.	.....	.....	.....			
24. Tollage on boats ..	621-10-6	422-0-3	1,043-10-9	4. Amount credited in the accounts of the month		898 11 6
25. Compounded tollage on boats Rs.	.....	.....	.....			
26. Tollage on rafts ..	.....	.....	.....			
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-17	5. Balance due at the end of the month ...		440 10 6
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	.....			

## HIGH LEVEL CANAL, RANGE II.

LENGTH OF CANAL OPEN, 12½ MILES.

No. of Boats.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	
		Up.	Down.	Total.	Rupces.	Tons.	
50	1. Grain	158	15	173	9,144	173	9,144
	2. Cotton	.....	.....	.....	.....	.....	.....
3	3. Oilseeds	.....	22	22	1,687	22	1,687
2	4. Salt	4	2	6	930	6	930
5	5. Piece-goods	.....	2	2	960	2	960
	6. Metal	.....	.....	.....	.....	.....	.....
2	7. Building materials	.....	7	7	100	7	100
26	8. Miscellaneous	7	66	73	10,001	73	10,001
2	9. Fuel	.....	2	2	3	2	3
rafts	10. Timber	.....	666 c. ft.	666 c. ft.	343	666 c. ft.	343
...	11. Bamboos	.....	.....	.....	.....	.....	.....
0 & rafts.	12. Total	169	116 666 c. ft.	285 666 c. ft.	23,168	285 666 c. ft.	23,168
88 & rafts.	13. Total of same month last year.	407	114½ 3,000 c. ft. 550 No.	521½ 3,000 c. ft. 550 No.	30,721	516½ 3,006 c. ft. 550 No.	30,693
		Up.	Down.	Total.			Rs. A. P.
Total number of boats ply- ing cargo ... No.		61	29	90	Total tollage of month— 24 + 25 + 26 ...		270 0 9
Total number of boats ply- ing passenger ... No.		17	29	46	Total tollage of same month last year ...		210 7 9
Ditto empty boats ...		51	52	103	Memorandum of Tollage.		
Total registered tonnage, cargo and boats Tons		339	233	572			
Ditto Govt. ditto ...		.....	.....	.....			
Total registered tonnage, passenger Tons		353	421	774			
Ditto empty ditto ...		188	126	314			
Ton-milage ...		7,684	18,891	26,575	1. Balance not recovered on the 1st of the month ...		16 1 3
Estimated value of cargo Ra.		11,356	11,469	22,825	2. Tollage per month ...		270 0 9
Number of passengers ...		150	435	585	3. Total ...		286 2 0
Rafts, bamboos C. ft.		.....	.....	.....	4. Amount credited in the accounts of the month ...		281 8 3
Do., billahs ...		.....	666	666	5. Balance due at the end of the month ...		4 9 9
Estimated value of rafts Ra.		.....	343	343			
Tollage on boats ...		131-0-0	130-10-3	261-11-6			
Compounded tollage on boats Ra.		.....	.....	.....			
Tollage on rafts ...		.....	8-5-3	8-5-8			
Total tollage on boats per ton-mile Ra.		.....	.....	0-0-1-85			
Total tollage on rafts per 100 cubic feet Ra.		.....	.....	1-3-3			

## HIGH LEVEL CANAL, RANGE III.

LENGTH OF CANAL OPEN, 19 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.	
		Quantity—Tons.			Quantity.	Value.
		Up.	Down.	Total.	Tons.	Rupees.
36	1. Grain ...	98	10	108	108	6,294
...	2. Cotton ...	.....	.....	.....	.....	.....
...	3. Oilseeds ...	.....	.....	.....	.....	.....
4	4. Salt ...	3	8	11	11	1,360
1	5. Piece-goods ...	.....	3	3	3	1,070
...	6. Metal ...	.....	.....	.....	.....	.....
5	7. Building materials ...	.....	24	24	.....	405
7	8. Miscellaneous ...	.....	50	50	50	5,664
...	9. Fuel ...	.....	.....	.....	.....	.....
...	10. Timber ...	.....	.....	.....	.....	.....
...	11. Bamboos ...	.....	.....	.....	.....	.....
53	12. Total ...	101	95	196	172	14,793
78	13. Total of same month last year ...	193	75	268	246	16,561

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	35	18	53	Total tollage of month— 24 + 25 + 26 ...	227 8 0
15. Total number of boats plying passenger No.	16	29	45	Total tollage of same month last year ...	78 15
15½. Ditto empty ditto ..	45	41	86		
16. Total registered tonnage, cargo and boat Tons	204	146	350		
16½. Ditto Govt. ditto ..	.....	49	49		
17. Total registered tonnage, passenger Tons	362	422	784		
17½. Ditto empty ditto ..	195	99	285		
18. Ton-mileage ...	12,800	11,771	24,571		
19. Estimated value of cargo Rs.	5,850	8,948	14,798		
20. Number of passengers ...	184½	763	947½		
21. Rafts, bamboos C.ft.	.....	.....	.....		
22. Do., bullehs ..	.....	.....	.....		
23. Estimated value of rafts Rs.	.....	.....	.....		
24. Tollage on boats ..	110-9-6	116-14-6	227-8-0		
25. Compounded tollage on boats Rs.	.....	.....	.....		
26. Tollage on rafts ..	.....	.....	.....		
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-1-77		
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	.....		
				Memorandum of Tollage.	
					Rs. A. P.
				1. Balance not recovered on the 1st of the month ...	—0 10 0
				2. Tollage per month ...	227 8
				3. Total ...	226 14
				4. Amount credited in the accounts of the month ...	227 8
				5. Balance due at the end of the month ...	—0 10

## JALPORE CANAL.

LENGTH OF CANAL OPEN, 6½ MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupess.	Tons.	Rupess.	
35	1. Grain ...	...	57	57	1,456	57	1,456	
"	2. Cotton ...	.....	.....	.....	.....	.....	.....	
1	3. Oilseeds ...	.....	6	6	756	6	756	
"	4. Salt ...	.....	.....	.....	.....	.....	.....	
1	5. Piece-goods ...	.....	1	1	300	1	300	
"	6. Metal ...	.....	.....	.....	.....	.....	.....	
"	7. Building materials ...	.....	.....	.....	.....	.....	.....	
S	8. Miscellaneous ...	.....	23	30	5,187	30	5,187	
"	9. Fuel ...	7	.....	.....	.....	.....	.....	
1 raft.	10. Timber No. 214 ...	.....	1,284 c. ft.	1,284 c. ft.	642	1,284 c. ft.	642	
"	11. Bamboos ...	.....	.....	.....	.....	.....	.....	
45 & 1 raft.	12. Total ...	{ 7	87 1,284 c. ft.	94 1,284 c. ft.	8,341	{ 94 1,284 c. ft.	8,341	
15 & 3 rafts.	13. Total of same month last year.	{ 84	16 2,052 c. ft. 100 No.	234 2,652 c. ft. 100 No.	1,202	{ 234 2,652 100 No.	1,202	
		Up.	Down.	Total.				Rs. A. P.
1.	Total number of boats plying cargo No.	4	41	45	Total tollage of month— 24 + 25 + 26			32 10 6
2.	Total number of boats plying passenger No.	10	12	22	Total tollage of same month last year			18 11 8
3.	Ditto empty ditto "	39	5	44				
4.	Total registered tonnage, cargo and boat Tons	14	176	190				
5.	Ditto Govt. ditto "	.....	.....	.....				
6.	Total registered tonnage, passenger Tons	72	99	171	Memorandum of Tollage.			
7.	Ditto empty ditto "	100	10	110				Rs. A. P.
8.	Ton-mileage ...	116	1,700	1,816	1. Balance not recovered on the 1st of the month			.....
9.	Estimated value of cargo Rs.	1,690	6,009	7,699	2. Tollage per month			32 10 6
10.	Number of passengers ...	26	177	203	3. Total			32 10 6
11.	Rafts, bamboos C. ft.	.....	.....	.....	4. Amount credited in the accounts of the month			30 13 6
12.	Do., bullahs "	.....	1,284	1,284	5. Balance due at the end of the month			1 13 0
13.	Estimated value of rafts Rs.	.....	642	642				
14.	Tollage on boats "	9-15-0	19-12-6	29-11-6				
15.	Compounded tollage on boats Rs.	.....	.....	.....				
16.	Tollage on rafts "	.....	2-15-0	2-15-0				
17.	Total tollage on boats per ton-mile	.....	.....	0-0-2-02				
18.	Total tollage on rafts per 100 cubic feet	.....	.....	0-3-8				

SOUTH-WESTERN CIRCLE.  
MIDNAPORE CANAL.  
LENGTH OF CANAL OPEN, 53 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.	
		Quantity—Tons.			Value.	Quantity.	Value.
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.
1,055	1. Grain ...	6,005	845	6,850	4,31,915	6,850	4,31,915
3	2. Cotton ...	...	4	4	1,754	4	1,754
50	3. Oilseeds ...	146	249	395	42,837	395	42,837
181	4. Salt ...	...	1,554	1,554	1,54,274	1,554	1,54,274
13	5. Piece-goods ...	27	42	69	1,70,720	69	1,70,720
28	6. Metal ...	88	149	237	1,82,545	237	1,82,545
59	7. Building materials ...	611	39	650	2,720	650	2,720
535	8. Miscellaneous ...	931	1,631	2,562	6,60,766	2,562	6,60,766
57	9. Fuel ...	79	410	489	4,441	489	4,441
14 rafts	10. Timber ...	3,503 c. ft.	231 c. ft.	3,734 c. ft.	1,907	3,734 c. ft.	1,907
3 "	11. Bamboos ...	600 "	12 "	612 "	39	612 "	39
1,981 & 17 rafts.	12. Total ...	7,887 & 4,103 c. ft.	4,923 & 248 c. ft.	12,810 & 4,346 c. ft.	16,53,918	12,810 & 4,346 c. ft.	16,53,918
2,342 & 8 rafts.	13. Total of same month last year.	9,229 & 3,242 c. ft.	4,073	13,302 & 3,242 c. ft.	13,14,827	13,302 & 3,242 c. ft.	13,14,827

	Up.	Down.	Total.		Rs. A.
14. Total number of boats plying cargo No.	1,283	698	1,981	Total tollage of month— 24 + 25 + 26 ...	12,242 12
15. Total number of boats plying passenger No.	680	785	1,465	Total tollage of same month last year ...	14,861 3
15½. Ditto empty "	343	787	1,130	<i>Memorandum of Tollage.</i>	
16. Total registered tonnage, cargo Tons	19,807	11,336	31,143		
17. Total registered tonnage, passenger Tons	4,429	4,014	8,443		
17½. Ditto empty "	1,562	3,831	5,393		Rs. A.
18. Ton-mileage	476,482	280,444	756,926	1. Balance not recovered on the 1st of the month ...	7,216 0
19. Estimated value of cargo Rs.	8,01,632	8,50,340	16,51,972	2. Tollage per month ...	12,242 12
20. Number of passengers ...	9,969	10,237	20,206	3. Total ...	19,458 12
21. Rafts, bamboos C. ft.	600	12	612	Deduct remission* ...	2,241 0
22. Do., bullahs "	3,503	231	3,734		17,217 0
23. Estimated value of rafts Rs.	1,423	523	1,946	4. Amount paid into treasury during the month ...	12,295 1
24. Tollage on boats "	7,515-9-3	4,683-7-6	12,199-0-9	5. Balance due at the end of the month ...	4,921
25. Compounded tollage on boats Rs.	.....	.....	.....		
26. Tollage on rafts "	39-14-0	3-14-0	43-12-0		
27. Total tollage on boats per ton-mile Pie	.....	.....	0-0-3		
28. Total tollage on rafts per 100 cubic feet Rs.	...	.....	1-0-0		

\* Remission for half tolls on Ghatal steamers  
Ditto for demurrage

Rs. A. P.  
8,300 0 0  
43 8 0

Total 8,343 8 0



## HIDGELLER TIDAL CANAL

LENGTH OF CANAL OPEN, 29 MILES.

Number of boats or rafts.	Description.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity - Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupces.	Tons.	Rupces.	
396	1. Grain ...	2,947	1	2,948	1,38,072	2,948	1,38,072	
...	2. Cotton ...	...	...	...	...	...	...	
3	3. Oilseeds ...	...	9	9	1,350	9	1,350	
67	4. Salt ...	...	643	643	69,675	643	69,675	
4	5. Piece-goods ...	...	12	12	8,750	12	8,750	
...	6. Metal ...	...	...	...	...	...	...	
3	7. Building materials ...	...	8	8	74	8	74	
658	8. Miscellaneous ...	517	622	1,139	1,12,259	1,139	1,12,259	
4	9. Fuel ...	3	3	42	298	42	298	
...	10. Timber ...	...	...	...	...	...	...	
...	11. Bamboos ...	...	...	...	...	...	...	
1,125	12. Total ..	3,467	1,334	4,801	3,30,478	4,801	3,30,478	
1,249	13. Total of same month last year.	3,353	1,273	4,626	3,04,572	4,590	3,04,322	
		Up.	Down.	Total.			Rs. A. P.	
14.	Total number of boats plying cargo No.	548	577	1,125	Total tollage of month— 24 + 25 + 26 ...		4,097 13 9	
15.	Total number of boats plying passenger No.	48	33	81	Total tollage of same month last year		4,738 15 0	
16.	Total registered tonnage, cargo Tons	6,940	5,135	12,075	Memorandum of Tollage.			
17.	Total registered tonnage, passenger Tons	653	421	1,074				
18.	Ton-mileage ...	1,30,094	1,03,963	2,34,057	Rs. A. P.			
19.	Estimated value of cargo Rs.	1,49,129	1,81,349	3,30,478				
20.	Number of passengers ...	2,749	1,089	3,838	1. Balance not recovered on the 1st of the month ... 1,132 13 3			
21.	Rafts, bamboos C. ft.	...	...	...	2. Tollage per month ... 4,097 13 9			
22.	Do., buliahs "	...	...	...				
23.	Estimated value of rafts Rs.	...	...	...	3. Total ... 5,230 11 0			
24.	Tollage on boats "	2,278-8-8	1,819-7-0	4,097-13-9	4. Amount paid into treasury during the month 3,065 5 9			
25.	Compounded tollage on boats Rs.	...	...	...	5. Balance due at the end of the month 2,165 5 3			
26.	Tollage on rafts "	...	...	...				
27.	Total tollage on boats per ton-mile Rs.	...	...	0-0-3-3				
28.	Total tollage on rafts per 100 cubic feet Rs.	...	...	...				

SONE CIRCLE.  
PATNA CANAL SYSTEM.  
LENGTH OF CANAL OPEN, 86½ MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity--Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupers.	Tons.	Rupers.	
33	1. Grain ...	...	440	440	31,865	440	31,865	
...	2. Cotton ...	...	...	...	...	...	...	
55	3. Oilseeds ...	1	817	818	91,220	818	91,220	
1	4. Salt ...	69	...	69	7,158	69	7,158	
28	5. Piece-goods ...	158	8	166	17,630	159	17,200	
1	6. Metal ...	15	1	16	2,835	16	2,335	
9	7. Building materials ...	20	60	80	1,005	70	715	
48	8. Miscellaneous ...	231	156	387	55,194	375	54,748	
...	9. Fuel ...	...	...	...	...	...	...	
2	10. Timber ...	20	...	20	1,006	...	...	
1	11. Bamboos ...	...	9	9	150	9	150	
178	12. Total ...	514	1,492	2,006	2,08,108	1,957	2,05,916	
183	13. Total of same month last year ...	603	1,437	2,040	2,01,213	1,941	1,98,141	
		Up.	Down.	Total.			Rs. A. P.	
14.	Total number of boats plying cargo No.	63	116	178	Total tollage of month-- 24 + 25 + 26 ...		2,437 5 0	
15.	Total number of boats plying passenger No.	5	7	12				
154.	Ditto empty boats "	80	11	91	Total tollage of same month last year ...		2,515 7 2	
16.	Total registered tonnage, cargo Tons	974	2,554	3,528				
17.	Total registered tonnage, passenger Tons	173	181	354	Memorandum of Tollage.			
17a.	Ditto empty boats "	382	50	432				
18.	Ton-mileage ...	82,119	1,66,943	2,49,062			Rs. A. P.	
19.	Estimated value of cargo Re.	46,396	1,61,687	2,08,083	1. Balance not recovered on the 1st of the month ...		297 11 0	
20.	Number of passengers ...	397½	436	833½	2. Tollage per month ...		2,437 5 0	
21.	Rafts, bamboos C. ft.	...	...	...	3. Total ...		2,735 0 0	
22.	Do., bullahs "	...	100	100				
23.	Estimated value of rafts Re.	...	25	25	4. Amount credited in the accounts of the month ...		2,530 14	
24.	Tollage on boats "	672-4-3	1,720-12-9	2,393-1-0				
25.	Compounded tollage on boats Re.	22-1-0	22-1-0	44-2-0				
26.	Tollage on rafts "	...	0-2-0	02-0				
27.	Total tollage on boats per ton-mile Re.	...	...	0-0-1-8				
28.	Total tollage on rafts per 100 cubic feet Re.	...	...	0-2-0	5. Balance due at the end of the month ...		195 2	

## ARRAH CANAL SYSTEM.

LENGTH OF CANAL OPEN, 65 MILES.

Number of boats or rafts.	Description.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupces.	Tons.	Rupces.	
28	1. Grain ...	35	850	385	26,788	385	26,788	
1	2. Cotton ...	4	.....	4	1,556	4	1,556	
6	3. Oilseeds ...	.....	57	57	4,607	57	4,607	
19	4. Salt ...	187	.....	187	20,029	187	20,029	
1	5. Piece-goods ...	13	.....	13	19,900	13	19,900	
...	6. Metal ...	1	3	4	40,550	4	40,550	
15	7. Building materials ...	28	93	121	899	64	517	
35	8. Miscellaneous ...	39	264	303	22,154	278	22,133	
14	9. Fuel ...	10	198	208	3,274	198	2,774	
...	10. Timber ...	.....	.....	.....	.....	.....	.....	
...	11. { Firewood ...	.....	26	26	62	26	62	
...	{ Bamboos ...	.....	.....	.....	.....	.....	.....	
119	12. Total ...	317	991	1,308	1,39,819	1,216	1,38,916	
200	13. Total of same month last year.	501	1,586	2,087	1,38,205	1,902	1,37,401	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	39	80	119	Total tollage of month— 24 + 25 + 26 ...	1,350 0 3
15. Total number of boats plying passenger No.	4	3	7	Total tollage of same month last year ...	1,605 0 3
16. Total number of empty boats No.	66	13	79		
16. Total registered tonnage, cargo Tons	616	1,746	2,362		
17. Total registered tonnage, passenger Tons	93	80	173		
17. Total registered tonnage, empty Tons	314	58	372		
18. Ton-mileage ...	42,896	88,407	131,303		
19. Estimated value of cargo Rs.	49,979	89,778	1,39,757		
20. Number of passengers ...	993	1,057	2,050		
21. Rafts, bamboos C.ft.	.....	.....	.....		
22. Do., bullahs "	.....	.....	.....		
22. Do., firewood "	.....	2,000	2,000		
23. Estimated value of rafts Rs.	.....	62	62		
24. Tollage on boats "	219-0-9	673-13-6	892-14-3		
25. Compounded tollage on boats Rs.	228-0-0	228-0-0	456-0-0		
26. Tollage on rafts "	.....	1-2-0	1-2-0		
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-1-97		
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-0-10		
				1. Balance not recovered on the 1st of the month ...	61 7 3
				2. Tollage per month ...	1,350 0 3
				3. Total ...	1,411 7 6
				4. Amount credited in the accounts of the month ...	1,365 15 0
				5. Balance due at the end of the month ...	45 8 6

## BUXAR CANAL SYSTEM.

LENGTH OF CANAL OPEN, 67 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
33	1. Grain	.....	600	600	36,474	600	36,474	
2	2. Cotton	.....	35	35	2,000	35	2,000	
...	3. Oilseeds	.....	2	2	308	2	308	
...	4. Salt	.....	3	3	3,940	3	3,940	
...	5. Piece-goods	.....	1	1	1,160	1	1,160	
6	6. Metal	.....	119	119	825	119	825	
5	7. Building materials	.....	121	121	10,847	121	10,847	
...	8. Miscellaneous	.....	.....	.....	.....	.....	.....	
...	9. Fuel	.....	.....	.....	.....	.....	.....	
...	10. Timber	.....	.....	.....	.....	.....	.....	
...	11. Bamboos	.....	.....	.....	.....	.....	.....	
46	12. Total	16	875	891	55,054	772	54,229	
61	13. Total of same month last year.	204	798	1,002	63,621	780	62,168	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo	.....	46	46	Total tollage of month—	
15. Total number of boats plying passenger	10	9	19	24 + 25 + 26	520 4 6
15½. Ditto empty	27	7	34		
16. Total registered tonnage, cargo	16	1,152	1,168	Total tollage of same month last year	502 15 9
17. Total registered tonnage, passenger	276	243	519		
17½. Ditto empty ditto	134	32	166		
18. Ton-mileage	4,777	24,734	29,511	Memorandum of Tollage.	
19. Estimated value of cargo	8,225	46,829	55,054		
20. Number of passengers	740	76	1,448	1. Balance not recovered on the 1st of the month	25 10 0
21. Rafts, bamboos	.....	.....	.....	2. Tollage per month	520 4 6
22. Do., bullocks	.....	.....	.....		
23. Estimated value of rafts	.....	.....	.....	3. Total	545 14 0
24. Tollage on boats	24-13-9	281-6-9	306-4-8	4. Amount credited in the accounts of the month	544 11
25. Compounded tollage on boats	107-0-0	107-0-0	214-0-0		
26. Tollage on rafts	.....	.....	.....	5. Balance due at the end of the month	1 3
27. Total tollage on boats per ton-mile	.....	.....	0-0-3-88		
28. Total tollage on rafts per 100 cubic feet	.....	.....	.....		

**ABSTRACT FOR THE MONTH OF JULY 1890 AS COMPARED WITH THE  
CORRESPONDING MONTH OF THE PREVIOUS YEAR.**

CANAL.	TRAFFIC, 1890-91.						TRAFFIC, 1889-90.						REMARKS.
	During the month.			To end of the month.			During the month.			To end of the month.			
Orissa Circle.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Baldanda Canal System ...	306	5	0	1,362	4	2	656	14	3	2,021	5	10	
Chandrapara Canal System ...	5,431	6	1	18,797	5	3	5,142	8	7	14,095	6	2	
High Level, Range I ...	1,043	10	9	2,840	14	0	883	8	5	2,073	6	2	
Ditto " II ...	270	0	9	1,135	1	9	210	7	9	1,103	12	3	
Ditto " III ...	227	8	0	822	14	3	78	15	0	524	12	9	
Jeypore Canal ...	32	10	6	69	6	4	13	11	8	30	0	0	
Total Orissa Circle ...	7,711	9	1	26,027	13	9	6,986	1	8	19,848	11	2	
South-Western Circle.													
Midnapore Canal ...	12,242	12	9	42,565	7	3	14,861	3	9	52,760	10	9	
Hidgellee Tidal Canal ...	4,097	13	9	9,048	9	9	4,733	15	9	20,622	0	3	
Total South-Western Circle	16,340	10	6	51,614	1	0	19,595	3	6	73,382	11	0	
Sone Circle.													
Patna Canal System ...	2,437	5	0	9,159	5	2	2,515	7	3	10,967	10	2	
Arrah ditto ...	1,350	0	3	7,529	14	6	1,605	0	3	6,931	14	5	
Buxar ditto ...	520	4	6	3,420	6	6	502	15	9	2,793	5	8	
Total Sone Circle ...	4,307	9	9	20,109	10	2	4,623	7	3	20,692	14	3	
GRAND TOTAL ...	28,359	13	4	96,751	8	11	31,204	12	5	1,13,924	4	5	

**GOVERNMENT TRANSPORT SERVICE.**

CANAL.	TRAFFIC, 1890-91.						TRAFFIC, 1889-90.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.
<i>Orissa Circle.</i>	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
High Level ...	1,396	759	1,649 2 10	3,132	3,720	3,630 6 3	1,181	644	1,157 9 2	2,139	3,293	2,356 12 6
Total Orissa Circle ...	1,396	759	1,649 2 10	3,132	3,720	3,630 6 3	1,181	644	1,157 9 2	2,139	3,293	2,356 12 6

**TOTAL NAVIGATION RECEIPTS.**

CANAL.	EARNINGS, 1890-91.						EARNINGS, 1889-90.						REMARKS.
	During the month.			To end of the month.			During the month.			To end of the month.			
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Orissa Canals	9,360	11	11	28,858	4	0	8,143	10	10	22,205	7	8	
Midnapore Canal	12,242	12	9	42,565	7	3	14,861	3	9	52,760	10	9	
Hidgellee Tidal Canal	4,097	13	9	9,048	9	9	4,733	15	9	20,622	0	3	
Sone Canals	4,307	9	9	20,109	10	2	4,623	7	3	20,692	14	3	
Total	30,009	0	2	1,00,381	15	2	32,362	5	7	1,16,281	0	11	

CALCUTTA,  
The 10th November 1890.

G. A. G. SHAWZ,  
Under-Secy. to the Govt. of Bengal.

## CIRCULAR AND EASTERN CANALS.

*Approximate return of traffic for the week ending Saturday, the 18th October 1890,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 18TH OCTOBER 1890.			WEEK ENDING SATURDAY, THE 18TH OCTOBER 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	307	58,860	967	309	69,310	957
Jute	184	99,410	1,812	223	1,90,800	2,774
Firewood	91	62,625	794	174	80,100	1,339
Other articles	1,116	3,00,140	4,361	919	2,02,485	3,078
Total	1,698	5,21,035	7,924	1,624	5,40,695	8,148

## CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 25th October 1890,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 25TH OCTOBER 1890.			WEEK ENDING SATURDAY, THE 25TH OCTOBER 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	338	57,000	884	240	59,700	931
Jute	361	2,11,930	3,776	206	94,775	1,662
Firewood	182	96,075	1,348	138	61,200	803
Other articles	850	1,91,425	3,046	961	2,11,555	2,952
Total	1,731	5,55,430	9,054	1,544	4,17,230	6,348

## CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 1st November 1890,  
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 1ST NOVEMBER 1890.			WEEK ENDING SATURDAY, THE 2ND NOVEMBER 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	419	55,080	908	184	28,950	408
Jute	345	1,78,110	3,227	193	85,350	1,558
Firewood	165	98,925	1,351	126	45,450	689
Other articles	1,239	2,57,100	3,562	1,186	2,89,920	4,103
Total	2,167	5,84,095	9,048	1,689	4,47,670	6,758

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 1st November 1890, on 1,525½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week	234,717	Rs. A. P. 2,86,069 1 0	Mds. B. 10,82,152 10	Rs. A. P. 4,94,931 5 0	10,721 8 0	7,95,738 12 8	70,561½	78,325	148,886½
Or per mile of railway		184 18 11		324 7 0	10 6 11	521 9 10			
For previous 17 weeks of half-year	2,783,583	28,89,927 4 0	2,14,25,008 30	71,44,930 8 0	2,75,336 0 8	1,13,10,200 13 2	1,073,606½	1,229,169½	2,302,776½
Total for 18 weeks	4,010,299	41,74,996 5 0	3,31,20,130 0	76,39,872 15 0	2,91,055 5 8	1,21,06,024 9 2	1,144,192	1,307,481½	2,451,673½
COMPARISON.									
Total for corresponding week of previous year	259,183½	3,30,266 5 10	16,52,009 10	6,73,126 15 9	25,000 11 4	6,23,393 0 11	67,848	72,043	139,891
Per mile of railway corresponding week of previous year		216 7 9		511 7 5	15 1 8	541 0 11			
Total to corresponding date of previous year	4,779,193½	45,30,709 1 3	2,73,27,283 30	61,00,211 13 3	2,04,636 12 2	1,30,25,642 9 8	1,173,771	1,439,739	2,613,510

\* The falling off in coaching traffic is chiefly in 3rd class passengers booked from N.-W., O. &amp; R. and E. H. &amp; C. L. Ry.

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1889.			RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 1ST NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 1ST NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
1,525½	Rs. 2,23,232	Rs. 541	1,610½	Rs. 7,96,734	Rs. 523	1,940½	Rs. 2,40,32,414	Rs. 528	1,525½	Rs. 2,33,94,635	Rs. 491	Rs. 17,27,403	

## PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 1st November 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week	9,855	Rs. A. P. 5,531 7 0	Mds. B. 40,420 30	Rs. A. P. 2,770 10 0	51 5 0	8,281 0 0	1,837	467	2,304
Or per mile of railway	172	96 3 10	707 20	45 2 11	0 9 7	144 13 4			
For previous 17 weeks of half-year	108,603	1,19,790 1 0	5,23,749 30	25,340 10 0	578 7 0	1,54,715 3 0	22,032½	9,100	31,132½
Total for 18 weeks	208,477	1,24,294 2 0	5,70,210 24	28,100 4 0	601 15 0	1,62,006 11 0	23,864½	9,563	33,427½
COMPARISON.									
Total for corresponding week of previous year	11,902	6,834 12 4	29,107 10	2,170 5 0	46 10 2	9,047 12 1	1,969	360	2,329
Per mile of railway corresponding week of previous year	5 5	118 13 5	684 30	31 0 9	0 12 1	157 13 3			
Total to corresponding date of previous year	346,557	1,35,370 15 0	2,20,050 30	20,090 15 0	746 10 3	1,79,042 18 3	20,861	13,204	34,065

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 2ND NOVEMBER 1889.			RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 2ND NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 1ST NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
57½	Rs. 3,029	Rs. 188	57½	Rs. 8,345	Rs. 145	57½	Rs. 1,93,000	Rs. 165	57½	Rs. 2,89,748	Rs. 163	Rs. 17,719	Rs. 2,907



## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 1st November 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	18,700	Rs. 4,675 11 8	Mds. 10,487 6	Rs. 594 18 8	Rs. 6 8 4	Rs. 5,286 10 0	593	50	643
Or per mile of railway ...	838	Rs. 210 4 0	466 2	Rs. 26 4 7	0 4 8	Rs. 230 13 5	26 7	2 2	28 9
For previous 17 weeks of half-year ...	272,017	Rs. 66,096 6 0	Mds. 97,292 20	Rs. 5,755 2 0	Rs. 68 2 0	Rs. 66,843 1 0	15,363	745	16,108
Total for 18 weeks ...	290,717	Rs. 70,771 1 0	Mds. 1,08,779 20	Rs. 6,350 4 0	Rs. 74 4 0	Rs. 75,211 11 0	15,956	865	17,821
COMPARISON.									
Total for corresponding week of previous year ...	20,749	Rs. 5,190 9 2	Mds. 20,456 20	Rs. 410 6 8	Rs. 7 3 5	Rs. 5,608 3 5	808	133	1,041
Per mile of railway corresponding week of previous year ...	923	Rs. 233 4 7	Mds. 923 4 7	Rs. 18 7 1	Rs. 0 4 2	Rs. 233 0 10	26 7	2 2	28 9
Total to corresponding date of previous year ...	318,993	Rs. 77,839 14 4	Mds. 1,02,090 10	Rs. 4,318 8 8	Rs. 108 10 3	Rs. 81,676 0 7	15,585	1,250	17,835

Approximate Statement of gross receipts of the Tarkeessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1889.			RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 2ND NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 1ST NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
22½	5,094	222	22½	5,279	237	22½	1,51,215	238	22½	1,50,090	222	...	4,285

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B. Dacca, K. D., and Assam-Bihar Sections.)

Approximate Return of Traffic for week ended 13th October 1890, on 763 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steamer-tolls.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	128,782	Rs. 73,400 0 0	Mds. 5,73,431 0	Rs. 1,42,800 0 0	Rs. 14,850 0 0	Rs. 2,30,050 0 0	23,405	81,945	1,05,350
Or per mile of railway ...	169	Rs. 96 0 8	Mds. 751 0	Rs. 187 0 0	Rs. 19 0 8	Rs. 305 0 0	30 7	10 6	41 3
For previous 15 weeks of half-year ...	2,604,925	Rs. 6,57,149 0 0	Mds. 26,21,467 0	Rs. 21,53,289 0 0	Rs. 2,22,478 0 0	Rs. 23,53,906 0 0	231,245	490,708	721,953
Total for 16 weeks ...	2,733,707	Rs. 6,70,549 0 0	Mds. 26,98,898 0	Rs. 22,96,089 0 0	Rs. 2,37,328 0 0	Rs. 24,04,795 0 0	254,650	572,653	827,303
COMPARISON.									
Total for corresponding week of previous year ...	123,473	Rs. 63,101 0 0	Mds. 5,53,306 0	Rs. 1,35,181 0 0	Rs. 14,800 0 0	Rs. 2,23,282 0 0	22,506	82,121	1,04,627
Per mile of railway corresponding period of previous year ...	163	Rs. 84 0 0	Mds. 726 0	Rs. 205 0 0	Rs. 19 0 0	Rs. 304 0 0	30 7	10 6	41 3
Total to corresponding date of previous year ...	2,212,556	Rs. 5,59,033 0 0	Mds. 1,09,51,372 0	Rs. 24,27,425 0 0	Rs. 2,45,000 0 0	Rs. 26,30,951 0 0	240,444	501,521	741,965

\* Audited up to week ending 30th August 1890.  
† Excluding steamer earnings.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 13TH OCTOBER 1889.			RECEIPTS FOR WEEK ENDING 13TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 13TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 13TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
763	2,23,281	292	763	2,20,280	289	714	87,79,503	279	750	26,57,456	280	70,951	...

\* Audited up to week ending 30th August 1890.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. D. AND ASSAM-BRIDGE SECTIONS).

Approximate Return of Traffic for week ended 25th October 1890, on 763 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.*		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	135,997	65,440 0 8	5,65,103 0	1,61,099 0 0	11,170 0 0	7,30,890 0 0	22,350	32,174	54,524
Or per mile of railway ...	178	86 0 0	741 0	202 0 0	11 0 0	220 0 0	...	...	...
For previous 15 weeks of half-year ...	2,103,600	9,30,820 0 0	91,96,130 0	32,95,845 0 0	2,58,322 0 0	*34,04,700 0 0	314,447	521,043	835,490
Total for 17 weeks ...	2,239,597	9,96,260 0 0	97,61,233 0	34,56,944 0 0	2,69,492 0 0	36,65,400 0 0	336,897	553,087	890,984
COMPARISON.									
Total for corresponding week of previous year ...	311,236	61,196 0 0	5,78,616 0	1,00,404 0 0	10,204 0 0	2,43,816 0 0	22,632	34,822	57,454
Or per mile of railway corresponding period of previous year ...	140	82 0 0	771 0	233 0 0	12 0 0	307 0 0	...	...	...
Total in corresponding date of previous year ...	2,431,766	10,80,300 0 0	1,00,08,000 0	35,06,881 0 0	2,64,864 0 0	38,78,967 0 0	365,470	536,773	902,243

\* Audited up to week ending 30th August 1890.

† Excluding steamer earnings.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 20TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
763	1,61,099	211	763	2,20,399	289	715	80,14,329	280	759	*60,78,044	267	63,715	...

\* Audited up to week ending 30th August 1890.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 18th October 1890, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.*		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	22,730	10,680 0 0	80,000 0	4,200 0 0	30 0 0	15,730 0 0	3,066	2,400	5,466
Or per mile of railway ...	182	85 0 0	640 0	40 0 0	1 0 0	125 0 0	...	...	...
For previous 15 weeks of half-year ...	377,559	1,17,330 0 0	5,99,051 0	43,967 0 0	2,588 0 0	1,67,194 0 0	57,311	30,892	88,203
Total for 16 weeks ...	400,448	1,27,940 0 0	6,78,851 0	48,237 0 0	2,618 0 0	1,82,924 0 0	60,379	32,692	93,071
COMPARISON.									
Total for corresponding week of previous year ...	31,320	1,384 0 0	85,092 0	2,322 0 0	27 0 0	11,683 0 0	2,667	1,965	4,632
Or per mile of railway corresponding period of previous year ...	178	87 0 0	685 0	29 0 0	...	96 0 0	...	...	...
Total in corresponding date of previous year ...	484,863	1,45,303 0 0	10,53,585 0	99,063 0 0	2,740 0 0	2,47,706 0 0	50,421	40,743	91,164

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
125	11,940	96	125	15,730	126	125	4,27,554	110	125	*3,48,432	96	...	70,190

\* Audited up to week ending 30th August 1890.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 26th October 1890, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	25,135	5,000 0 0	33,544 c	3,310 0 0	50 0 0	11,360 0 0	3,069	1,008	5,540
Or per mile of railway ...	201	40 0 0	269 c	27 0 0	0 0 0	91 0 0	...	...	...
For previous 16 weeks of half-year ...	406,448	1,27,065 0 0	6,48,531 c	53,237 0 0	2,012 0 0	1,82,081 0 0	50,975	31,902	89,971
Total for 17 weeks ...	426,004	1,35,040 0 0	6,82,175 c	56,547 0 0	2,076 0 0	1,84,714 0 0	50,659	34,854	91,350
COMPARISON.									
Total for corresponding week of previous year ...	18,352	7,536 0 0	29,479 c	2,394 0 0	54 0 0	9,983 0 0	3,927	2,035	5,472
Per mile of railway corresponding week of previous year ...	147	60 0 0	238 c	19 0 0	1 0 0	80 0 0	...	...	...
Total to corresponding date of previous year ...	632,350	1,52,636 0 0	10,05,952 c	1,02,054 0 0	2,794 0 0	2,67,596 0 0	60,908	42,846	1,02,950

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 26TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 26TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 26TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 26TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
125	3,069	80	125	11,360	91	125	4,37,535	117	125	* 5,50,833	96	.....	77,713

\* Audited up to week ending 30th August 1890.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for week ended 18th October 1890, on 65 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	15,353	6,140 0 0	27,313 c	2,470 0 0	130 0 0	8,830 0 0	2,410	604	2,704
Or per mile of railway ...	189	73 0 0	513 c	29 0 0	2 0 0	105 0 0	...	...	...
For previous 16 weeks of half-year ...	227,113	71,536 0 0	2,22,756 c	19,039 0 0	4,195 0 0	94,781 0 0	28,551	10,625	44,221
Total for 16 weeks ...	242,006	77,700 0 0	2,50,066 c	21,509 0 0	4,376 0 0	1,03,591 0 0	27,961	11,875	46,350
COMPARISON.									
Total for corresponding week of previous year ...	13,394	4,960 0 0	31,742 c	2,027 0 0	101 0 0	7,044 0 0	2,512	529	2,341
Per mile of railway corresponding week of previous year ...	145	67 0 0	560 c	36 0 0	1 0 0	96 0 0	...	...	...
Total to corresponding date of previous year ...	223,461	73,633 0 0	3,82,314 c	26,360 0 0	2,240 0 0	1,03,898 0 0	29,512	14,380	54,340

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH OCTOBER 1889.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
65	7,044	69	65	5,830	100	65	1,77,541	71	65	* 1,66,435	74	7,014	.....

\* Audited up to week ending 30th August 1890.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for week ended 25th October 1890, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	10,887	Rs. A. P. 3,810 0 0	Mds. 2. 24,167 0	Rs. A. P. 1,800 0 0	Rs. A. P. 60 0 0	Rs. A. P. 3,870 0 0	2,410	606	3,016
Or per mile of railway ...	121	42 0 0	281 0	21 0 0	1 0 0	45 0 0	...	...	...
For previous 16 weeks of half-year ...	245,069	77,749 0 0	250,049 0	31,509 0 0	4,376 0 0	*1,03,404 0 0	37,661	11,375	49,036
Total for 17 weeks ...	255,956	81,559 0 0	274,216 0	33,309 0 0	4,436 0 0	1,08,144 0 0	40,071	12,080	52,151
COMPARISON.									
Total for corresponding week of previous year ...	12,919	4,757 0 0	36,441 0	2,740 0 0	360 0 0	7,663 0 0	3,621	730	4,351
Per mile of railway corresponding period of previous year ...	150	55 0 0	427 0	33 0 0	5 0 0	65 0 0	...	...	...
Total to corresponding date of previous year ...	245,400	77,810 0 0	273,755 0	30,100 0 0	5,735 0 0	1,11,164 0 0	42,430	13,041	55,471

\* Audited up to week ending 26th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 25TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
86	Rs. 7,663	88	86	Rs. 8,330	96	86	Rs. 1,66,433	78	86	*1,91,000	74	Rs. 5,378	Rs. 2,207

\* Audited up to week ending 26th August 1890.

## NALHATI STATE RAILWAY.

Approximate Return of Traffic for week ended 18th October 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	4,249	Rs. A. P. 1,500 0 0	Mds. 2. 9,556 0	Rs. A. P. 250 0 0	Rs. A. P. 20 0 0	Rs. A. P. 1,520 0 0	580	170	750
Or per mile of railway ...	150	55 0 0	351 0	19 0 0	1 0 0	55 0 0	...	...	...
For previous 16 weeks of half-year ...	42,917	15,026 0 0	1,60,818 0	3,211 0 0	220 0 0	*23,019 0 0	9,179	5,384	14,563
Total for 16 weeks ...	46,966	16,526 0 0	1,69,076 0	3,744 0 0	240 0 0	23,510 0 0	9,759	5,554	15,313
COMPARISON.									
Total for corresponding week of previous year ...	4,490	1,545 0 0	2,803 0	200 0 0	40 0 0	1,785 0 0	580	240	820
Per mile of railway corresponding period of previous year ...	163	55 0 0	103 0	8 0 0	2 0 0	55 0 0	...	...	...
Total to corresponding date of previous year ...	49,247	17,071 0 0	1,40,420 0	3,297 0 0	234 0 0	23,559 0 0	9,220	5,812	15,032

\* Audited up to week ending 26th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 18TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 18TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
27½	Rs. 1,785	65	27½	Rs. 2,051	75	27½	Rs. 34,133	69	27½	*1,531	63	Rs. 2,207	Rs. 2,207

\* Audited up to week ending 26th August 1890.

## NALHATI STATE RAILWAY.

Approximate Return of Traffic for week ended 25th October 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week (on 27½ miles open) ...	2,761	Rs. 2,079 38	Mds. 16,196 214	Rs. 844 51	Rs. 10	Rs. 1,090 79	540	850	760
Per mile of railway ...	101	75 38	596 214	30 51	0 0	40 0	19 6	31 4	29 6
For previous 16 weeks of half-year ...	46,936	10,350	1,69,674	8,744	240	*20,514	8,752	5,554	14,306
Total for 17 weeks ...	49,747	17,596	1,76,280	9,588	250	27,430	9,292	5,904	15,196
COMPARISON.									
Total for corresponding week of previous year ...	2,954	1,044	9,407	511	11	1,689	588	612	790
Per mile of railway corresponding period of previous year ...	108	38	337	18	0	61	27 6	31 4	29 6
Total to corresponding date of previous year ...	52,203	19,041	1,60,303	9,948	1,355	30,247	9,812	6,234	16,046

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	1,690	61	27½	1,920	70	27½	55,824	68	27½	* 13,451	65	.....	2

\* Audited up to week ending 30th August 1890.

BENGAL AND NORTH-WESTERN AND TIRHOOT RAILWAYS.  
COMBINED SYSTEM.

Approximate Return of Traffic for week ended 25th October 1890, on 691 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steamboat earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week (on 691 miles open) ...	68,050	Rs. 20,290	Mds. 2,59,940	Rs. 40,439	Rs. 7,330	Rs. 74,159	12,078	19,845	25,691
Per mile of railway ...	99 36	29 38	376 2	58 51	10 61	107 31	17 4	32 0	49 4
For previous 16 weeks of half-year ...	1,152,050	4,44,508	38,10,324	4,71,850	1,00,837	10,10,095	190,600	177,105	367,745
Total for 16 weeks ...	1,221,210	4,70,690	41,36,104	5,12,280	*1,08,167	10,21,140	203,570	186,910	390,380
COMPARISON.									
Total for corresponding week of previous year, 449 miles open ...	55,506	22,372	3,01,426	35,962	4,613	60,747	10,201	11,003	21,004
Per mile of corresponding week of previous year ...	89 78	50 05	669 45	82 17	10 41	133 00	22 7	24 6	47 3
Total to corresponding date of previous year ...	1,206,266	4,45,074	44,91,084	5,11,300	1,28,478	10,88,458	186,000	212,807	398,807

\* steamboat earnings for the week, Rs. 6,000.  
Ditto ditto to date, Rs. 48,000.\* Ajodhya bridge earnings for the week, Rs. 500.  
Ditto ditto adjustment, Rs. 400.  
Ditto ditto to date, Rs. 800.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal and North-Western and Tirhoot Railways.

RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1890.			RECEIPTS FOR WEEK ENDING 25TH OCTOBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH OCTOBER 1889.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
691	74,159	107 31	649	60,747	93 60	672	24,14,925	120 53	649	23,29,111	123 81	15,715	.....

N.W.—Receipts of B. and N.W. Section.

Week ended 25-10-90.

Week ended 25-10-89.

Earnings of Tirhoot Section.

Week ended 25-10-90.

Week ended 25-10-89.

Coaching  
Goods  
Other earnings

Total

Rs.  
Rs.  
Rs.

Total

Rs.  
Rs.  
Rs.

Total

Rs.  
Rs.  
Rs.

Total

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs.
Approximate earnings for week ending 11th October 1890	...	...	...	...	...	13,664
Corresponding period of 1889	...	...	...	...	...	11,372
Increase	...	...	...	...	...	2,292
						Rs. A. P.
Receipts per mile for week ending 11th October 1890	...	...	...	...	...	267 14 9
Corresponding period of 1889	...	...	...	...	...	228 0 0
Increase	...	...	...	...	...	44 14 9
						Rs.
Receipts from 1st July to 11th October 1890	...	...	...	...	...	1,43,064
Corresponding period of 1889	...	...	...	...	...	1,67,582
Decrease	...	...	...	...	...	24,518

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

						Rs.
Approximate earnings for week ending 18th October 1890	...	...	...	...	...	14,413
Corresponding period of 1889	...	...	...	...	...	11,200
Increase	...	...	...	...	...	3,213
						Rs. A. P.
Receipts per mile for week ending 18th October 1890	...	...	...	...	...	282 9 9
Corresponding period of 1889	...	...	...	...	...	219 9 11
Increase	...	...	...	...	...	62 16 10
						Rs.
Receipts from 1st July to 18th October 1890	...	...	...	...	...	1,57,467
Corresponding period of 1889	...	...	...	...	...	1,78,783
Decrease	...	...	...	...	...	21,316



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 19, 1890.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

### CONTENTS.

	Page.		Page.
Resolution on the General Administration Report of the Dacca Division for the year 1889-90	2331	Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 14th of November 1890	2344
Lepet Asylum Committee	2334	Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 9th to 15th November 1890	2346
Resolution on the report of the Committee for the Management of the Calcutta Zoological Gardens for the year 1889-90	2335	Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 25th October 1890	2349
Quarterly inspection of the Kidderpore Dock Works	2336	Circular and Eastern Canals for the week ending 8th to 15th November 1890	2353
Rainfall, Weather, and State and Prospects of the Crops	2338	Weekly Return of Traffic Receipts on Indian Railways	2353
Results of the Meteorological Observations taken at the Alipore Observatory from 6th to 15th November 1890	2341		
Meteorological Report of the Province of Bengal for the week ending Friday the 14th of November 1890	2343		

### RESOLUTION ON THE GENERAL ADMINISTRATION REPORT OF THE DACCA DIVISION FOR THE YEAR 1889-90.

#### GENERAL DEPARTMENT—MISCELLANEOUS.

*Darjeeling, the 11th November, 1890.*

#### RESOLUTION.

#### READ—

The General Administration Report of the Dacca Division for the year 1889-90.

The report is submitted by Mr. Power, who held charge of the Division for only the two last days of the year, and is therefore chiefly based on the remarks made by the District Officers, one of whom, however, took charge in the last month of the year, while another took charge after its close. The Commissionership was held for nearly the first nine months of the year by Mr. Worsley, and thereafter for three months by Mr. Clay.

2. The record of touring and inspection done by all officers, except the District Officer of Furreredpore, was exceptionally good. The Commissioner's tour extended to 104 days, the Collectors of Backergunge and Mymensingh were each out for 100 days, while the Collector of Dacca was out for 96 days. In Furreredpore changes of officers and sickness combined to reduce the touring done to 60 days. Of the 12 Subdivisional Officers, four performed tours of over 100 days, and those of the others were of sufficient duration. All the district offices and treasuries, and nine out of the twelve subdivisional offices and treasuries, were inspected by the Commissioner either during the year or immediately after its close. By the Collectors their own offices were inspected twice, seven of the subdivisional offices once, and five of the subdivisional offices twice.



3. The rainfall was plentiful, but in two districts, Dacca and Furreedpore, was so unevenly distributed as to reduce the outturn on the whole to less than eight annas or half an average crop. Backergunge throve on the misfortunes of its neighbours, and secured abnormally high prices for a full average crop. In Mymensingh also the crop, though not so good, is reported to have been quite an average one. In the two latter districts the condition of the people was naturally a very prosperous one, and it is said that the only classes which suffered were those with small fixed incomes. In Dacca and Furreedpore, however, some pressure is said to have been felt on account of the partial failure of the food crops. The health of the people was not good; fever and cholera were exceptionally prevalent, and on the whole it is said that the year was less healthy than any of the preceding quinquennial period.

4. Beyond the ordinary articles for domestic use made in every district, there is not much of importance manufactured in this Division. Such manufactures as there are, however, all showed an improvement over the previous year. The outturn of indigo in Goalundo increased from 83 to 101 maunds, of sugar in Furreedpore from 9,080 to 12,049 maunds, and the steam oil-mill established five years ago at Jhalokati in Backergunge produced 16,900 maunds of oil—an increase of 10 per cent. over the production of the previous year. The export trade in all articles except hides showed considerable expansion. The value of that from Naraingunge amounted to Rs. 1,14,89,150, against Rs. 1,01,61,683 in 1888-89. The trade of this place, it is said, has more than trebled since 1879-80, when Naraingunge was first declared to be a port, and has expanded by nearly 60 per cent. within the last five years. In Backergunge and Mymensingh, where the rice crops were good, the export was of course large; and in Dacca and Furreedpore jute has to a large extent supplanted rice, so that the latter is hardly exported at all from those districts. In Backergunge very little jute is grown, as the saline soil deteriorates the fibre: but in the three northern districts it is a peculiarly suitable crop, and is largely grown. This is due to the fact that the crop is an early one, and can therefore be exported by water before the khals have become impassable. There was a heavy crop of betel-nuts, and large quantities were exported to Calcutta and Burmah, while cocoanuts were as usual largely exported to Calcutta and to other districts.

5. The Commissioner remarks that trade is carried on chiefly by water in country boats and steamers, that there are hardly any carts, and that the amount of traffic carried on by the railway, though considerable in itself, is, comparatively speaking, small. Again, under the head of "Communications," he says—

"The improvement of water communication does not appear to have attracted much attention during the year. In low-lying districts like those of this division, road-making, involving as it does the construction of high embankments, is very expensive, and, as one Magistrate remarks, it would probably be very beneficial to the people if some portion of the money at the disposal of the Boards was expended in deepening or clearing the silt of the more important of the numerous khals and nullahs which intersect the division."

The question of roads *versus* khals is an extremely important one, and was discussed by Mr. Larminie (chiefly with reference to Backergunge) in his Annual Road Cess Report, published in page 1095 of the *Calcutta Gazette* for 9th June, 1886. Mr. Larminie was of opinion that at that time in the districts of Dacca, Mymensingh and Furreedpore roads were likely to prove of the greatest use to the public, but that in Backergunge money could more usefully be expended in improving the natural water communications.

6. The police are said to have worked fairly well during the year. The number of cognizable and non-cognizable cases is not given; but from the Inspector-General's report it appears that there was an increase in both classes of crime. The number of cases in which police enquiry was refused was 453 against 685 in the previous year. The largest number of refusals occurred in Mymensingh, where the police are numerically weakest in view of the area and population, and the smallest number (28), as in the previous year, in Furreedpore. False cases again showed an increase (695 against 660), but the results of the prosecutions were somewhat better, convictions being obtained in 27·7 per cent. of the cases as against 22·9, the percentage of the previous year.

7. The Land Revenue collections were on the whole satisfactory. The outstanding balance decreased from Rs. 3,30,124 to Rs. 2,95,014, and the per-

centage of total collections on total demand increased from 90·8 to 92·06, Furreedpore being the only district in which the percentage was below 90. There was a decrease in the outstanding balance on account of cesses in all districts except Furreedpore, but this was accompanied by an increase in the number of certificates filed from 9,819 to 10,821. There was a falling off in the Excise revenue, due mainly to the closing of outstills where the upset price was not paid, and to the abolition of the outstill system, which told heavily on the sales and reduced the advance collections paid in March. Under Stamps there was an increase of Rs. 58,031, the total revenue amounting to Rs. 6,20,538. The increase was general throughout the division. The Commissioner remarks:—

“This general increase is not traceable to any marked temporary cause, and may therefore be attributed to the growing artificiality of existence, i.e., to what is usually called progress.”

The income-tax worked much more smoothly. The demand increased from Rs. 2,55,800 to Rs. 2,72,008, while the outstanding balance at the close of the year decreased from Rs. 5,300 to Rs. 2,110, and the percentage of objections was reduced from 7·8 to 5·8. Although the tax may continue to be unpopular, the expressions of discontent have apparently somewhat diminished. The system of paying land revenue by postal and revenue money-orders continued to work well, and the amount remitted increased from Rs. 1,45,539 to Rs. 1,78,808.

8. As in previous years, full statistics are given regarding the progress of education in the division, but no explanation is offered of their more striking features. Thus under secondary education an increase of only 2·4 per cent. in the number of pupils is accompanied by an increase of 7 per cent. in the expenditure; while under lower primary a decrease of 2·1 per cent. in the number of scholars is accompanied by an increase of 3·8 per cent. in the expenditure, and under female schools, although there has been a decrease of 5·5 per cent. in the expenditure, the decrease in the number of scholars amounts to no less than 23·1 per cent. As there was also a reduction in the expenditure from municipal and local funds, these facts point, until explained, to the supposition that the results must to some extent be due to a want of efficient administration on the part of the municipalities and District Boards concerned. On the other hand, it is satisfactory to note the large increase of 10,321 scholars under “Private institutions for indigenous instruction,” and His Honour observes with much pleasure that there is an increase in the number of Mahomedan boys attending every class of school, an improvement which is, however, accompanied by a decrease of over 53 per cent. in the number of Mahomedan pupils attending girls’ schools and female schools. Two new colleges have been established at Barisal, viz., the Brojo Mohon Institution and the Raj Chandra College. In the Commissioner’s report they are stated to have had respectively 21 and 12 students on the 31st March 1890. In the Director of Public Instruction’s report, the numbers given are 61 and 27, and the average daily attendance is returned as 44 and 21. The discrepancy is remarkable and should be explained.

9. In paragraph 244 the Commissioner says that the management of the pounds by the District Boards has not as yet resulted in any marked improvement, and that the Magistrate is of opinion that systematic inspection by some responsible officer of the Boards is much to be desired. This source of revenue is believed to be capable of considerable expansion, and such an inspection as that suggested, which ought to be easily arranged without additional expense, would probably effect something in this direction for by an examination of the counterfoils the inspecting officer could readily ascertain from what distance cattle are usually brought to the pounds, and consequently what room there is for the establishment of new pounds, and he could probably also form a shrewd guess whether the rent realized for the pound was a fair one or not.

10. Regarding the zemindars, the Commissioner makes the following remarks:—

“Nawab Sir Abdal Ghuni, K.C.S.I., Nawab Ahsanullah, Khan Bahadoor, and Rajah Rajendra Narayan Roy Bahadoor, have maintained their reputation as loyal subjects, peaceful landlords, and public benefactors. Of the other zemindars of this district,

Dacca.

Babu Srinath Roy of Bhagyakul deserves prominent mention for his public spirit in contributing a munificent donation of Rs. 30,000 in memory of his mother for the building and foundation of an eye-ward to be attached to the Mitford Hospital at Dacca.

"The principal zemindars of this district are absentees. There was nothing in their conduct during the year deserving of special mention.

"The zemindars of this district, with the exception of Nawab Ahsanullah, have done nothing during the year to merit praise."

On the contrary, it is stated that many of them, by their conduct in stirring up disturbances for their own ends, deserve severe censure.

The Commissioner while noticing the absence this year of any special act of beneficence on the part of the Mymensingh zemindars reports that the Maharajah of Susung, Rajah

Surja Kantha Acharjya Bahadoor of Mooktagacha, Babu Jogendra Kishore Roy Choudhuri of Ramgopalpore, Babu Brojendra Kishore Roy Choudhuri of Gauripore, Srimati Jahnobi Choudhurani and Srimati Bindu Bashini Choudhurani of Kagnare, Hafez Mahomed Aly Khan of Karotia, Babu Radha Bollabh Choudhuri of Sherepore, and Mir Abdul Huq of Sabinnagar, have maintained their reputation as liberal, peaceful, and law-abiding landlords.

11. The Lieutenant-Governor has much pleasure in acknowledging the good services rendered by Mr. Savage at Backergunge, Mr. Hare at Dacca, and Mr. R. C. Dutt at Mymensingh, which have been brought to his notice by the Commissioner. The Personal Assistant, Babu Okhoy Coomar Sen, is also favourably mentioned. Mr. Worsley was in charge of the Division during the greater part of the year under report, and deserves His Honour's thanks for his careful and judicious administration. The present Officiating Commissioner, Mr. Power, has done well during his tenure of office.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

*Secretary to the Govt. of Bengal.*

#### LEPER ASYLUM COMMITTEE.

##### RESOLUTION.

##### MEDICAL.

*Dated the 12th November 1890.*

READ again the undermentioned papers—

- (1). Government Resolution, Medical, dated 29th July 1890.
- (2). Government Resolution, Medical, dated 16th September 1890.

MR. W. BANKS GWYTHER is appointed a member of the Committee formed to consider the question of providing Calcutta with a new, enlarged and improved Leper Asylum.

ORDER.—Ordered that a copy of the Resolution be forwarded to the Secretary to the Leper Asylum Committee for information, and to the Public Works Department of this Government for information and communication to Mr. W. Banks Gwyther.

\* Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. C. STEVENS,

*Offg. Chief Secretary to the Govt. of Bengal.*

RESOLUTION ON THE REPORT OF THE COMMITTEE FOR THE  
MANAGEMENT OF THE CALCUTTA ZOOLOGICAL GARDENS  
FOR THE YEAR 1889-90.

REVENUE DEPARTMENT—MISCELLANEOUS (F).

*Dated Darjeeling, the 13th November 1890.*

RESOLUTION.

READ—

The Report of the Committee for the Management of the Calcutta Zoological Gardens for the year 1889-90.

The accounts appended to this report show that the financial position of the Gardens requires the serious attention of the Committee. The receipts from private sources amounted to Rs. 18,126, the Government contribution was Rs. 19,504, making a total income of Rs. 37,630, while the expenditure was Rs. 46,285, leaving a deficit of Rs. 8,655. Of this Rs. 6,523 were spent on original works of construction; but, even excluding that sum, the cost of ordinary administration exceeded the income. The balance was reduced from Rs. 11,279 to Rs. 2,624.

The Lieutenant-Governor notices with satisfaction that a very useful tropical aviary was constructed during the year, which bears the name of the Nawab Bahadur of Moorshedabad in recognition of his large subscription to the Gardens of Rs. 10,000.

The number of visitors who paid entrance fees was 109,569 against 111,573 in the previous year; but this number was exclusive of a large number of students and children under eight years of age who were admitted free of charge. The most important additions made in the course of the year were a pair of adult African lions, two African leopards, one African caracal, and one hunting leopard presented by His Excellency the Viceroy; a pair of young Indian lions presented by the Nawab of Junagarh, Katteywar, and two tigress cubs presented by Sir Stenart Bayley. One zebra was obtained by exchange from the Zoological Society's Gardens, London, and a pair of jaguars from Mr. Carl Hagenbeck of Hamburg. The birth of a pair of tiger cubs is mentioned as an unusual event during the year. Of the presentations made, there were 60 mammals, 34 birds, and 4 reptiles. The total number of presentations during the year was 98 as against 42 in the previous year, and is indicative of the interest taken by the public in the institution.

It is stated that the institution continued to maintain its popularity with the students and teachers of the various schools and colleges of Calcutta and its suburbs.

The thanks of the Lieutenant-Governor are due to the members of the Committee for their efficient management of the Gardens during the year.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

*Secretary to the Govt. of Bengal.*

No. 297Mne., dated Calcutta, the 15th November 1890.

THE following Report of the 14th quarterly inspection of the Dock Works at Kidderpore, which are being carried out by the Commissioners of the Port of Calcutta, is published for general information.

W. B. BESTIC,

*Under-Secretary to the Govt. of Bengal.*

#### QUARTERLY INSPECTION OF THE KIDDERPORE DOCK WORKS.

From—MAJOR A. D. McARTHUR, R.E., and W. CONNAN, Esq.,

To—The Secretary to the Government of Bengal, Public Works Department.

IN accordance with the orders of the Government of Bengal, communicated with letter No. 178T.—M. of the 21st ultimo (received on the 4th instant), we have the honour to report that the 14th quarterly inspection of the Kidderpore Dock Works was made on the 8th instant.

The usual tabular statement and the index plan showing the work done during the quarter ending 30th September 1890, and the total amount of work executed from the commencement, which has been prepared by the Superintending Engineer of the Dock Works, are already with Government. The present state of the various works under construction is reported in the following paragraphs.

*Sixty feet Lock.*—As reported in the last quarter, the work was almost completed, with the exception of the riverside revetment. Of the estimated quantity of masonry, viz. 2,229,490 c. feet, 98.1 per cent. was executed up to the end of the quarter, thus leaving only 1.9 per cent. remaining to be done.

*Eighty feet Entrance.*—With the exception of the riverside revetments, this work is completed; about 21.0 per cent. of excavation remains to be done.

*Double Entrance to Dock No. 1.*—Is finished, including the swing-bridge which is open to traffic.

*Tidal Basin.*—Quay walls completed, with the exception of coping, of which 35.4 per cent. still remains: 5.3 per cent. of the masonry also remains to be done.

*Graving Dock.*—About 5 per cent. of the masonry remains to be done. The erection of the caissons has been commenced.

*Government Graving Dock.*—Is almost finished, with the exception of 6.7 per cent. of the estimated quantity of masonry. The foundations of the engine and boiler houses, which serve both graving docks, have been got in, and the centrifugal pumps are being erected as the work proceeds.

*Dock No. 1.*—The quay wall was completed with the exception of the coping which was in progress. We regret to record that in the beginning of October, or shortly after the expiry of the quarter ending September, to which period the progress herein stated bears reference, a considerable length of the walls of this Dock suddenly showed signs of failure. We understand that the matter has already been reported to Government, and that a more detailed report is in course of preparation, which will be submitted in due course. As far as we could note during our inspection, the following is the present condition of the damaged work, the same being roughly indicated on the diagram accompanying the progress report and submitted herewith.

Movement of the long straight length of the east wall of the Dock has taken place over 2,050 feet, commencing about 50 feet from the angle of the short berth at the north end and extending to the angle of the wall at the south end. The displacement at the extremities of this length is shown by slight cracks in the face of the masonry extending through the wall and by longitudinal cracks along the course of the tunnel arch; but it is not considered that the latter extend through the solid masonry. The wall has been thrust forward by the earth backing, and tilted so as to bring the face to a vertical position along the whole damaged length. The movement is very slight at the two extremities and attains a maximum at a distance of 1,650 to 1,700 feet from the south angle, where the displacement at the coping level is 7' 5½". From this point of maximum displacement to the south angle, an almost perfect

straight line has been preserved, the remaining 400 feet at the north end being more or less bulged. The original batter of the wall was  $\frac{1}{2}$ " to the foot or about 2' in the total height from the foundation, and this amount would represent the forward movement at the top edge of the coping due to tilting, the remainder of the movement, or a maximum of 5' 5 $\frac{1}{2}$ ", being the bodily transfer of the whole wall to the front sliding over its bed. The earth backing has sunk an average of perhaps 6' for a distance of 75 to 120 feet from the front of the wall, filling completely the gap caused by the displacement of the wall. The average height through which the wall has sunk is 15".

Shortly after the occurrence above mentioned, a serious movement and fracture of the wall at the south-west angle of the Dock took place. About 450 feet of the inclined portion of the wall was affected, and about 50 feet adjoining this at the end of the Dock. The greatest forward movement was at a point 120 feet from the angle of the side walls, being 12' 11 $\frac{1}{2}$ ", or, allowing 2 feet for the tilting of the wall, a forward movement of the whole wall of nearly 11 feet. The masonry of this portion is much shaken, showing cracks both on the face extending through the wall and longitudinal cracks. No less than seven cracks appear on the face of the wall and extending through it, while one appears at the extremity of the detached length at the end of the Dock. The mass of masonry here appears to have received a severe wrench from the force exerted by the backing at the point of maximum displacement, but the movement of the wall itself is small.

It was reported to us that since the first movement of the walls no further displacement or settlement has taken place. The masonry of both the damaged walls appears to us to be of thorough good quality.

*Boat Canal.*—Lift lock is finished, the main pumping-station is being roofed and the pump being erected; 19.5 per cent. of excavation and 17.0 per cent. of masonry still remain.

The Chetla lock walls are raised to within a few feet of coping level.

*Subsidiary Works.*—The hydraulic engine-house is completed. The four jetty heads to the entrance are about half done and the foundations of the cargo sheds were in progress. The latter along the length of the damaged portion of the Dock walls have sunk with the earth backing.

*Expenditure.*—The total expenditure up to the end of the quarter under review is reported to be Rs. 1,95,81,854, of which Rs. 1,70,48,464 represent outlay on works and Rs. 25,33,389 on account of land.

*Sanitary.*—During the quarter under review the health of the workpeople was generally good. The daily average number of coolies employed was 8,144, among whom there were four deaths, thus showing a death-rate of 7.82 per mille per annum.

*General remarks.*—We are of opinion that fair progress was made with the work up to the end of the quarter, which would have been maintained up to the date of our inspection but for the partial failure of the Dock walls. The quality of the work, as far as we have been able to judge, is satisfactory.

## Rainfall, Weather, and State and Prospects of the Crops.

\* Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 15th November 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.																
BENGAL.																			
Western Districts.																			
BUCKINGHAM DIV.	1 Bardwan Nov. 15, '90	Nil	Weather—calm, bright and cold. State and prospects of all crops good. The full outturn may be expected, and all agricultural operations are being carried on to the fullest extent. Common rice selling at 15 seers per rupee on an average.																
	2 Bankoor „ 15, '90	Nil	Cold weather has set in. Prospects of crops continue good. Sowing of mustard finished. Ploughing for wheat going on. Sugarcane prospering. Common rice selling at 20 seers per rupee at Sudder and 19½ seers at Bissampur.																
	3 Birbham „ 15, '90	Nil	Weather—seasonable. Prospects of crops continue excellent. A bumper crop of rice is now almost assured.																
	4 Midnapur „ 15, '90	Nil	Cold weather has set in. Winter rice doing well. <i>Rabbi</i> crops are being sown. Rice somewhat cheaper except in Ghatal. Prices of common rice:— <table><tr><td>Sudder</td><td>...</td><td>...</td><td>18</td></tr><tr><td>Tumlook</td><td>...</td><td>...</td><td>17½</td></tr><tr><td>Ghatal</td><td>...</td><td>...</td><td>18</td></tr><tr><td>Contai</td><td>...</td><td>...</td><td>19</td></tr></table> } per rupee.	Sudder	...	...	18	Tumlook	...	...	17½	Ghatal	...	...	18	Contai	...	...	19
	Sudder	...	...	18															
Tumlook	...	...	17½																
Ghatal	...	...	18																
Contai	...	...	19																
5 Hooghly „ 15, '90	Nil	Weather—cold, specially at night. Prospects of all crops good. Prices of common rice:— <table><tr><td>Sudder</td><td>...</td><td>...</td><td>13 or 14</td></tr><tr><td>Burampore</td><td>...</td><td>...</td><td>13</td></tr><tr><td>Jehanabad</td><td>...</td><td>...</td><td>10½</td></tr></table> } per rupee.	Sudder	...	...	13 or 14	Burampore	...	...	13	Jehanabad	...	...	10½					
Sudder	...	...	13 or 14																
Burampore	...	...	13																
Jehanabad	...	...	10½																
PRESIDENT DIV.	Howrah „ 15, '90	Nil	Weather—seasonable. Winter paddy doing well. Price of common rice 14 to 14½ seers per rupee.																
	6 24-Pergha Nov. 18, '90	Nil	Weather—seasonable. Prospects of <i>amra</i> crop favourable. Ploughing for winter crops still continues. Prices stationary.																
	7 Hudda „ 15, '90	Nil	Weather—seasonable. Prospects of crops fair. Sowing of winter crops going on. Price of rice stationary.																
	8 Khosla „ 15, '90	Nil	Weather—seasonable. Prospects of <i>amra</i> crop favourable except in the flooded area.																
	9 Jessore „ 15, '90	Nil	Weather—seasonable. Prospects of crops good. <i>Rabbi</i> sowings in progress. Agricultural loans still being issued.																
RAJSHAHY DIV.	10 Moorshedabad „ 15, '90	Nil	Weather—seasonable. <i>Haimanti</i> rice in ear. Prospects favourable. <i>Rabbi</i> crops still being sown. <i>Katai</i> doing well.																
	11 Dinagpur „ 15, '90	Nil	Weather—seasonable. Prospects of crops good. Price of rice unchanged. Locusts are reported to have done some damage in Patnitola police-station.																
	12 Rajshahy „ 15, '90	Nil	Weather—mornings and evenings cool; skies almost clear. Jute gathered. Preparation of lands for <i>rabbi</i> crops not yet finished. Tobacco being planted. Condition of winter paddy good.																
	13 Rangpur „ 15, '90	Nil	Fine bright cold weather with morning fogs and heavy dews. Mustard, pulses and wheat are being sown. Tobacco germinated and potatoes planted. <i>Amra</i> rice coming into ear. Prospects generally favourable.																
	14 Bogra „ 15, '90	Nil	Weather—seasonable. State and prospects of all crops good. Locusts passed from the west across the north-west part of the district (thana Panohibi) on the 7th instant, and did some damage to the crops and trees. Common rice is selling at 17½ seers per rupee.																
	15 Pabna „ 15, '90	Nil	Weather—seasonable. Prospects of crops good. Prices slightly reduced.																
	16 Darjeeling „ 15, '90	0.04	Weather—seasonable. In the Terai tobacco and potatoes are being planted. Mustard and sugarcane are doing well. Winter rice is in ear.																
	17 Jalpigore „ 15, '90	Nil	Weather—days somewhat hot, but nights cool. Prospects of standing crops favourable. Stoepping and gathering of jute almost finished. No change in the price of rice.																









No.	District and date of return.	Rainfall at Sadler Station in inches.	Character of the weather and state and prospects of the crops.
<b>BENGAL—concluded.</b>			
<i>Eastern Districts.</i>			
Dacca Divn.	18 Dacca Nov. 15, '90	Nil	Weather—seasonable. Prospects of <i>amun</i> rice good. Harvesting of <i>kartiki</i> (November) rice going on. <i>Mung</i> and <i>maskalai</i> being sown. Cultivation for mustard and pulses going on. Common rice sold at from 12 to 16 seers per rupee.
	19 Furreedpur „ 15, '90	Nil	Weather—seasonable. State of standing crops fair. Sowing of winter crops in progress. Common rice selling at from 13 to 17 seers per rupee.
	20 Backergunge „ 15, '90	Nil	Weather—seasonable. State and prospects of crops good. Common rice selling at about 13 seers a rupee.
	21 Mymensingh „ 15, '90	Nil	Weather—fine, but occasionally cloudy. Mornings and nights cool. Prospects and state of <i>amun</i> crop good. Harvesting of jute nearly finished. <i>Rubbi</i> sowings going on. Common rice sold at 12½ seers per rupee.
Chittagong Divn.	22 Chittagong „ 15, '90	Nil	Weather—seasonable. <i>Amun</i> crop maturing. Prospects favourable. Cultivation of vegetable crops going on. Prices steady.
	23 Noakhally „ 15, '90	Nil	Weather—seasonable. Sowing of <i>rubbi</i> crops going on. <i>Razfashil</i> rice is being reaped. Prospects of <i>amun</i> good. Outturn of betelnuts reported to be 14 annas.
	24 Tipperah „ 15, '90	Nil	Weather—seasonable. <i>Amun</i> prospering. Mustard and other winter crops being sown. Prices stationary.
	25 Chittagong Hill Tracts „ 13, '90	Nil	Weather—seasonable, with foggy mornings. Cotton being gathered. Harvesting of early plough-paddy commenced. Lands are being ploughed for mustard. Common rice is being sold at 11 seers 6½ chittacks per rupee.
Hill Tipperah		...	Report not received.
<b>BEHAR.</b>			
Patna Divn.	26 Patna Nov. 15, '90	Nil	Weather—cool. Paddy is fast approaching to maturity. Prospects good. <i>Rubbi</i> crops previously sown are growing well. <i>Rubbi</i> crops still being sown in lower lands as the water recedes. Prices of food-grains almost stationary.
	27 Gaya „ 15, '90	Nil	Weather—cold and fair. Paddy harvest commenced. Sowings of <i>rubbi</i> almost finished. Prospects favourable. Prices falling.
	28 Shahabad „ 15, '90	Nil	Weather—cool and clear. Prospects of all crops continue favourable. Poppy germinating well.
	29 Darbhanga „ 15, '90	Nil	Weather—bright, and cool at night. Rice crop in ear and approaching to maturity. <i>Rubbi</i> sowings rapidly progressing: those already sown are doing well. Tobacco and <i>aloe</i> promising. Poppy sowings going on. Price of common rice varies from 14 to 17 seers per rupee.
	30 Meulherpur „ 15, '90	Nil	Weather—seasonable. All crops doing very well. <i>Rubbi</i> still being sown. Poppy sowings making good progress.
	31 Saran „ 15, '90	Nil	Weather—seasonable. Prospects of <i>rubbi</i> and rice continue excellent. Poppy sowings in progress. Prices slightly falling.
Bhagalpur Divn.	32 Chumperas „ 15, '90	Nil	Weather—seasonable. Paddy beginning to ripen. <i>Rubbi</i> and poppy sowings progressing; seeds already sown have germinated well.
	33 Monghyr „ 15, '90	Nil	Weather—rather warm than usual at this season. <i>Rubbi</i> sowings nearly completed, and prospects good.
	34 Bhagalpur „ 15, '90	Nil	Weather—seasonable. Cutting of <i>raugi</i> rice has begun. Sowings of linseed and wheat continue. Prospects of all crops good.
	35 Purneah „ 15, '90	Nil	Weather—fine and cool. <i>Agahi</i> rice promises well. <i>Rubbi</i> prospects also good. Price of common rice 20 seers a rupee.
	36 Maldah „ 15, '90	Nil	Weather—seasonable. Prospects of all standing crops continue favourable, except in thanes Kaliachak, Bamongola, Old Maldah, and Ratna, where winter rice, <i>Kalai</i> , and mustard have been destroyed to some extent by locusts. Price of rice stationary.
	37 Southal Pargna „ 15, '90	Nil	Weather—seasonable. All crops doing well. Harvesting of early rice in progress; outturn more than average. <i>Rubbi</i> promises well.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
<b>ORISSA.</b>			
Orissa Divs.	38 Cuttack Nov. 15, '90	0.15	Weather—dry and cool. <i>Laghu sarad</i> is being reaped in Banki and Jajpur and ripening in other places. <i>Para sarad</i> is in ear. Prices of common rice— Sra. Ch. Sudder ... 18 0 } Jajpur ... 17 1 } per rupee. Koudrapara ... 21 0 } Banki ... { 21 old rice } 28 new rice }
	39 Poores „ 13, '90	Nil	Weather—fair and cold. State of standing crops good. Late <i>sarad</i> flourishing. Early <i>sarad</i> being harvested; expected outturn 14 annas. Price of rice 21 to 26 seers per rupee.
	40 Balasore „ 15, '90	Nil	Weather—seasonable. Harvesting of early winter rice continues. Average extent of sowing of <i>birri</i> , <i>mung</i> , and mustard up to date is about 15 annas.
<b>CHOTA NAGPORE.</b>			
<i>South-West Frontier Agency.</i>			
Chota Nagpore Divs.	41 Hazaribagh Nov. 15, '90	Nil	Weather—clear and cold. Harvesting of winter rice commenced. Prospects of <i>rubbi</i> crops continue good. Prices about stationary.
	42 Lohardugga „ 15, '90	Nil	Weather—seasonable. Harvesting of winter rice continues. Rain wanted for <i>rubbi</i> . Prices steady.
	43 Singhbhum „ 15, '90	Nil	Weather—seasonable: bright and cool. Paddy crop being harvested with an outturn of 10 to 16 annas. <i>Rubbi</i> crops doing well everywhere. Prices stationary.
	44 Manbhum „ 15, '90	Nil	Weather—seasonable. Reaping of upland paddy going on. Expected outturn full. Rice selling at from 17 to 22 seers per rupee.

Published for general information.

CALCUTTA; REVENUE DEPT.,  
The 18th November, 1890.P. NOLAN,  
Secy. to the Govt. of Bengal.

## Results of the Meteorological Observations taken at the Alipore Observatory from 9th to 15th November 1890.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour pressure.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Nov.	9th	140·6	6·6	29·935	75·9	82·7	12·8	70·4	72·4	0·750	70·6	84	NNW and calm	20	Nil	Partially cloudy,
"	10th	136·3	9·7	·964	72·6	80·6	18·0	64·3	67·1	·598	63·8	76	NNW and calm	37	"	Clear, 
"	11th	135·6	9·6	·948	71·2	80·2	17·5	62·7	65·6	·557	62·0	75	NNW and calm	25	"	Clear, 
"	12th	136·7	9·0	·934	74·4	80·5	18·1	62·4	65·9	·567	62·5	75	Variable and calm	26	"	Chiefly clear, 
"	13th	137·5	9·7	·941	70·9	80·7	19·6	61·1	65·3	·558	61·8	74	WNW and calm	16	"	Clear, 
"	14th	137·5	9·9	·955	71·1	81·0	18·2	62·6	66·0	·574	62·8	77	Variable and calm	32	"	Clear, 
"	15th	137·8	9·5	·963	68·9	80·3	21·2	59·1	62·6	·485	68·1	69	NNW and calm	20	"	Clear, 

The mean pressure of the seven days ... .. 29·960  
The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 29·957

Hours.  
The total number of hours of bright sunshine ... .. 64·0  
The maximum possible number of hours of sunshine ... .. 77·6

The mean temperature of the seven days ... .. 72·1  
The average temperature of the corresponding period for 24 years, S.-G.'s Office 76·0  
The extreme variation of temperature ... .. 23·6  
The maximum temperature ... .. 82·7

Miles.  
The highest velocity of the wind in one hour ... .. 6

lbs.  
The highest pressure of wind on one square foot ... .. ?

%  
The mean relative humidity ... .. 76  
The average relative humidity of the corresponding period for 24 years, S.-G.'s Office 78

Inches.  
The total fall of rain from 9th to 15th November 1890 ... .. Nil  
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0·35  
The total fall from 1st January to 15th November 1890 ... .. 61·25  
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 65·13

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beekley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

a., dew.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;

Calcutta, the 17th November 1890.

## Meteorological Report of the Province of

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.											
			AIR PRESSURE.			WIND.		TEMPERATURE.						
			Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Unit.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature.
ORISSA.	Pooree	Pooree	30.017	30.029	+0.012	Northerly	105	88.7	9, 10 Nov.	86.8	19th Nov.	84.7	71.6	78.1
		Gopalpore	30.020	30.048	+0.028	NNW	151	88.8	10, 12, 14 Nov.	84.9	13, 14 "	83.2	70.1	78.1
		Paleo Point	30.010	30.052	+0.042	NW	113	84.9	10th "	82.5	12th "	83.7	67.0	75.4
	Cuttack	Cuttack	30.002	30.045	+0.043	Calm	85	87.9	8th "	80.3	13, 14 "	86.7	68.7	77.7
SOUTH-WEST BENGAL.	Balasore	Balasore	30.020	30.050	+0.030	Calm	80	85.4	9 & 10 "	80.0	13th "	83.7	68.3	74.5
	South-West Midnapore	Banger Island	30.008	30.035	+0.027	North-Westerly	168	88.7	8th "	82.0	12th "	81.7	68.8	75.1
	Midnapore	Midnapore	30.021	30.038	+0.017	N	122	86.3	10th "	80.2	12th "	83.2	68.2	74.4
	14-Pergunnahs	Calcutta	30.016	30.034	+0.018	Calm	21	82.3	10th "	81.2	13th "	80.9	64.8	72.9
SOUTH-WEST BENGAL.	Burdwan	Burdwan	30.047	30.060	+0.013	North-Westerly	25	86.3	7th "	82.4	11, 12, 14 Nov.	83.0	64.9	74.0
	Bankura	Bankura	30.012	30.028	+0.016	W	47	85.7	9th "	80.3	11, 12, 14 Nov.	82.8	62.3	73.1
	Barrackpore	Barrackpore	30.025	30.072	+0.047	NW	39	82.8	10th "	87.5	11th "	82.1	61.4	71.7
	North-Chandpur	North-Chandpur	30.021	30.030	+0.009	WSW	24	87.1	9, 12, 14 Nov.	82.7	14th "	81.4	65.0	73.2
SOUTH-WEST BENGAL.	Muddeb	Krishnagar	30.070	30.039	+0.031	WNW	55	84.6	10th "	80.0	14th "	83.7	62.4	73.1
	Jessore	Jessore	30.006	30.021	+0.015	Calm	15	84.7	9 & 10 "	84.5	11th "	85.8	67.0	75.3
	Chittagong	Chittagong	30.025	30.029	+0.004	NW	41	82.7	9, 10 "	81.9	13th "	81.8	67.2	74.5
	Chittagong Hill Tracts	Demagiri						Observations not received.						
SOUTH-WEST BENGAL.	Backergunge	Barisal	30.005	30.016	+0.011	Calm	27	87.3	10th Nov.	83.0	11th "	82.6	65.5	74.0
	Nakholly	Nakholly	30.000	30.035	+0.035	Calm	40	81.3	12th "	81.0	12th "	81.8	62.3	72.1
	Farrukpore	Farrukpore	30.004	30.036	+0.032	Calm	23	81.3	10th "	84.0	10th "	81.1	62.3	73.7
	Dacca	Dacca	30.025	30.008	+0.017	Variable	64	83.1	10, 12, 14 Nov.	84.3	9 & 10 "	82.8	65.6	74.0
SOUTH-WEST BENGAL.	Comilla	Comilla	30.020	30.028	+0.008	Calm	10	82.9	10th "	80.5	8, 10, 12 Nov.	81.8	61.7	71.8
	Mymensingh	Mymensingh	30.028	30.016	+0.012	Calm	28	82.2	12th "	81.8	10th "	81.1	64.4	72.7
	Bogra	Bogra	30.030	30.001	+0.029	Calm	23	81.8	13th "	80.4	9th "	80.6	63.7	71.7
	Pahna	Serajpore	30.071	30.018	+0.053	N	15	82.4	9th "	80.7	9th "	81.4	62.2	72.3
SOUTH-WEST BENGAL.	Rajahmundry	Rajahmundry	30.023	30.015	+0.008	N	28	81.3	12th "	82.7	10th "	80.7	64.4	72.6
	Malda	Malda	30.022	30.017	+0.005	NW	72	81.5	12th "	80.0	10th "	82.3	62.6	72.4
	Dinapore	Dinapore	30.000	30.020	+0.020	W	7	83.1	12th "	80.7	14th "	81.9	61.3	71.9
	Rangpur	Rangpur	30.001	30.030	+0.029	NE	9	83.8	13th "	81.2	9 "	82.1	62.3	72.1
SOUTH-WEST BENGAL.	Jalpaiguri	Jalpaiguri	30.022	30.021	+0.001	?	?	82.9	12, 13 "	80.3	21st "	81.5	61.7	71.6
	Darjeeling Hill Tracts	Darjeeling	30.029	—	—0.012	Variable	74	87.3	12th "	42.2	9th "	84.0	42.5	48.2
	Purnea	Purnea	30.001	30.033	+0.032	Variable	37	81.7	12th "	87.5	9th "	80.3	50.3	70.0
	North-Bangalore	North-Bangalore	30.040	30.050	+0.010	Calm	26	81.9	12th "	80.3	9th "	80.3	65.7	72.0
SOUTH-WEST BENGAL.	Darbhanga	Darbhanga	30.024	30.038	+0.014	WSW	22	81.9	12th "	80.3	14th "	81.3	60.6	70.9
	Chumpran	Mothari	30.010	30.047	+0.037	WSW	79	82.3	12th "	85.9	8th "	81.3	67.3	69.4
	Baran	Chupra	30.020	30.015	+0.005	Calm	26	82.5	12, 14 "	80.4	12th "	81.3	62.3	71.9
	Shahabad	Dahra	30.021	30.024	+0.003	WSW	62	84.3	14th "	84.5	12th "	82.3	67.4	70.0
SOUTH-WEST BENGAL.	Gya	Rajer Arrah	30.021	30.025	+0.004	WSW	42	82.4	14th "	85.4	11, 12, 13, 17 & 18 "	82.1	67.9	70.0
	Patna	Patna	30.025	30.024	+0.001	W	114	84.4	14th "	80.8	12, 14 "	80.9	60.0	71.0
	South-Bangalore	South-Bangalore	30.027	30.030	+0.003	W	39	81.9	13th "	80.3	14th "	81.5	62.1	70.2
	South-Bangalore	South-Bangalore	30.026	30.029	+0.003	Calm	9	80.3	14, 16 "	87.5	11th "	80.4	64.0	69.7
SOUTH-WEST BENGAL.	South-Bangalore	Doomke	30.026	30.047	+0.021	NW	28	81.0	0th "	80.6	11 & 12 "	81.0	60.1	70.1
	Basaribagh	Basaribagh	30.027	30.070	+0.043	Westerly	145	73.3	14th "	83.3	12th "	77.0	67.1	67.1
	Lebardanga	Lebardanga	30.022	30.020	+0.002	Calm	200	73.3	10th "	81.2	12th "	77.3	66.3	67.1
	Singbhum	Singbhum	30.027	30.025	+0.002	W	18	82.3	12th "	80.3	12th "	82.2	61.9	72.5

\* Means of six days.

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the readings during the same period for the years 1871-80. The humidity of the atmosphere is expressed as percentage, saturated air being represented by 100. A clear sky is denoted by c and an overcast sky by oc. The rain is in numerical means or average of the rainfall in that district determined from the returns sent in by the sub-divisional stations for the period in question during the year. The rain in the district during a return is divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 14th of November 1890.

				DISTRICT OBSERVATIONS.												
No.	Average wind velocity at 5 A.M.	Average cloud amount at 8 A.M. for week.	Rainfall of week at observing station.	OF WIND.		RAINFALL.						Average number of rainy days.	Normal number of rainy days.	Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
				Mean for district.	Normal mean.	Since 1st of month.			Since 15th May 1890.							
						Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.					
72	2.1	Nil	Nil	0.09	0.02	1.02	1.07	+0.05	65.77	65.00	+0.77	0.5	0.3	Pooros Gopalpore	Pooros	UNDA.
73	3.0	Nil	Nil	0.11	0.09	1.07	0.00	+1.07	65.54	60.00	+5.54	0.5	0.3	False Point	Pooros	UNDA.
74	3.9	Nil	Nil	0.11	0.09	0.87	0.00	+0.87	61.23	62.00	-0.77	0.5	0.3	Cuttack	Cuttack	UNDA.
75	0	Nil	Nil	0.00	0.11	0.87	0.00	+0.87	61.23	62.00	-0.77	0.5	0.3	Salasora	Salasora	UNDA.
76	1.1	Nil	Nil	0.07	0.06	0.86	0.00	+0.86	60.20	61.00	-0.80	0.0	0.1	Jamur Island	South-West Midnapore	UNDA.
77	1.1	Nil	Nil	0.01	Nil	0.17	0.00	+0.17	60.00	60.78	-0.78	0.0	0.1	Midnapore	Midnapore	UNDA.
78	1.3	Nil	Nil	0.02	0.07	0.07	0.00	+0.07	58.16	60.00	-1.84	0.0	0.1	Calcutta	Calcutta	UNDA.
79	3.1	Nil	Nil	0.01	0.00	0.70	0.00	+0.70	61.41	60.00	+1.41	0.0	0.1	Burdwan	Burdwan	UNDA.
80	3.4	Nil	Nil	0.04	0.01	0.37	0.00	+0.37	58.02	61.74	-3.72	0.0	0.1	Bankura	Bankura	UNDA.
81	1.3	Nil	Nil	0.00	0.00	0.16	0.00	+0.16	63.03	61.00	+2.03	0.0	0.1	Raneegunge	Raneegunge	UNDA.
82	0.4	Nil	Nil	0.00	0.00	0.22	0.00	+0.22	60.00	60.00	0.00	0.0	0.1	Gorhampore	Gorhampore	UNDA.
83	1.2	Nil	Nil	0.04	0.04	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Krishnagar	Krishnagar	UNDA.
84	1.4	Nil	Nil	0.00	0.00	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Jessore	Jessore	UNDA.
85	0.1	Nil	Nil	0.00	1.00	1.00	1.00	+0.00	110.00	110.00	0.00	0.0	0.5	Chittagong	Chittagong	UNDA.
86	0	Nil	Nil	0.16	0.40	1.01	1.00	+0.01	75.32	70.00	+5.32	0.0	0.5	Domagiri	Chittagong Hill Tracts	UNDA.
87	0	Nil	Nil	0.07	Nil	1.10	1.10	+0.00	60.00	70.00	-10.00	0.0	0.5	Barrickat	Backergunge	UNDA.
88	0	Nil	Nil	0.40	Nil	1.00	1.00	+0.00	97.00	100.00	-3.00	0.0	0.5	Nonkholly	Nonkholly	UNDA.
89	0.0	Nil	Nil	0.00	Nil	0.40	0.40	+0.00	40.00	40.00	0.00	0.0	0.1	Furroadpore	Furroadpore	UNDA.
90	0.0	Nil	Nil	0.00	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Dacca	Dacca	UNDA.
91	0.4	Nil	Nil	0.00	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Commillah	Fipserah	UNDA.
92	0.7	Nil	Nil	0.00	0.17	0.21	0.00	+0.21	70.00	60.00	+10.00	0.0	0.1	Mymensingh	Mymensingh	UNDA.
93	0.7	Nil	Nil	0.16	0.41	0.21	0.00	+0.21	70.00	60.00	+10.00	0.0	0.2	Hogra	Hogra	UNDA.
94	0.7	Nil	Nil	0.00	0.00	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Serajunga	Fahna	UNDA.
95	0.3	Nil	Nil	0.00	0.00	0.14	0.00	+0.14	70.00	60.00	+10.00	0.0	0.1	Rampore Bazar	Rajshahye	UNDA.
96	0	Nil	Nil	0.07	0.00	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Malda	Malda	UNDA.
97	0	Nil	Nil	0.00	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Dinapore	Dinapore	UNDA.
98	0	Nil	Nil	0.00	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Bungpore	Bungpore	UNDA.
99	0	Nil	Nil	0.00	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Jalpigore	Jalpigore	UNDA.
100	0.0	Nil	Nil	0.00	0.00	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.2	Darjeeling	Darjeeling Hill Tracts	UNDA.
101	0	Nil	Nil	0.00	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Purneah	Purneah	UNDA.
102	0	Nil	Nil	0.01	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Moukshapore	North Bhagalpore	UNDA.
103	0	Nil	Nil	0.01	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Durbhanga	Durbhanga	UNDA.
104	0.0	Nil	Nil	Nil	Nil	Nil	Nil	+0.00	60.00	60.00	0.00	0.0	0.0	Motihari	Chumpanan	UNDA.
105	0.2	Nil	Nil	0.01	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Caupra	Sarus	UNDA.
106	1.1	Nil	Nil	0.01	Nil	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Dehra	Dehra	UNDA.
107	1.2	Nil	Nil	0.01	Nil	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Buxar	Shahabad	UNDA.
108	1.0	Nil	Nil	0.01	Nil	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Arrah	Shahabad	UNDA.
109	0.7	Nil	Nil	Nil	Nil	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.0	Gya	Gya	UNDA.
110	0.0	Nil	Nil	Nil	Nil	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.0	Bankipore	Fahna	UNDA.
111	0	Nil	Nil	0.00	Nil	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Shagulpore	South Bhagalpore	UNDA.
112	0	Nil	Nil	0.00	0.00	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Uoomka	South Bhagalpore	UNDA.
113	2.1	Nil	Nil	0.07	0.01	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Hararibagh	Hararibagh	UNDA.
114	2.1	Nil	Nil	0.00	0.10	0.10	0.00	+0.10	60.00	60.00	0.00	0.0	0.1	Ranchi	Ranchi	UNDA.
115	1.3	Nil	Nil	0.00	Nil	0.00	0.00	+0.00	60.00	60.00	0.00	0.0	0.1	Gayabasa	Gayabasa	UNDA.

The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The average cloud amount represents the part of the sky covered, the wind velocity being denoted by 10. Under the head District observation of rainfall the normal means are given. The means of the district are the arithmetical average of the rainfall returns received in the districts, i.e., from total rainfall at the subdivisions.

## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 14th of November 1890.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL		Total rain- fall since 1st of month.	Average total rain- fall from 1st of month.	Total rain- fall since 15th May 1890.	Average rainfall from 15th May to date.	
			Saturday, 8th November.	Sunday, 9th November.	Monday, 10th November.	Tuesday, 11th November.	Wednesday, 12th November.	Thursday, 13th November.	Friday, 14th November.	Number of rainy days.	of Rainfall week.					
OCEANIC	Pooree	Pooree			0.17					NH	NH	2.23	1.59	69.07	48.49	
		Khurda								1	0.17	0.23	1.17	68.16	48.49	
		Bangpur				0.20				1	0.20	1.10	1.51	67.77	47.77	
		Balson Point								NH	NH	3.09	1.58	68.10	62.87	
		Qup								NH	NH	2.92	?	65.96	?	
		Salpara								NH	NH	4.14	?	62.97	?	
		Pupli								NH	NH	0.20	?	75.00	?	
	Outlook	Jaratangpore				0.17					NH	NH	1.39	0.73	65.07	48.78
		Banki			0.15						1	0.15	1.04	0.74	66.09	48.78
		Kendrapata									NH	NH	0.50	0.60	63.15	51.23
		Jajpore				0.13					1	0.13	0.61	0.76	68.10	41.75
		Dharmasala									NH	NH	0.10	?	67.18	?
Balsore	Salpara									NH	NH	0.70	?	64.10	?	
	Chandbali				0.25					1	0.25	0.61	1.10	64.00	41.00	
	Bhuddant									NH	NH	0.78	0.78	67.82	48.79	
	Sorah									NH	NH	0.10	0.33	60.84	48.01	
	Balsore									NH	NH	2.23	0.71	67.13	48.01	
NORTH-WEST BENGAL	Minnapore	Jajpore								NH	NH	1.21	0.28	65.83	40.28	
		Rarpodah								NH	NH	0.61	0.66	63.01	42.06	
		Contai								NH	NH	0.45	0.60	67.78	47.51	
		Saugor Island								NH	NH	1.44	0.78	68.05	48.23	
		Pudulook								NH	NH	0.27	0.27	67.90	48.03	
	St. Pergunnal	Minnapore									NH	NH	NH	0.20	67.67	47.19
		Ghatal									NH	NH	NH	0.16	64.01	43.46
		Kutubhaty									NH	NH	NH	?	60.30	?
		Gorhalia									NH	NH	NH	?	68.23	?
		Diamond Hill									NH	NH	0.74	0.90	62.19	47.44
	Howrah	Hour									NH	NH	NH	?	60.69	?
		Canning Town									NH	NH	0.05	0.21	61.96	44.53
Alipore Jail										NH	NH	NH	?	60.01	?	
Harrackpore										NH	NH	0.44	0.10	60.34	40.76	
Dum-Dum										NH	NH	NH	0.10	64.94	49.28	
Raughly	Barnali									NH	NH	NH	0.30	63.87	46.01	
	Manikhat									NH	NH	NH	?	?	?	
	Howrah									NH	NH	NH	0.27	61.34	40.07	
	Woharaka									NH	NH	NH	0.33	60.67	41.08	
	(Dhobara)									NH	NH	NH	?	?	?	
Hardwan	serampore									NH	NH	0.33	0.17	60.30	40.39	
	Raughly									NH	NH	NH	0.19	62.05	47.98	
	Ichmialand									NH	NH	NH	0.21	61.67	46.43	
	Chitra									NH	NH	0.20	0.24	64.31	43.09	
	Hardwan									NH	NH	0.50	0.28	63.53	47.47	
Bankura	Chitra									NH	NH	0.10	0.10	60.54	46.06	
	Manikhaty									NH	NH	0.41	?	63.23	?	
	Bankura									NH	NH	NH	?	?	?	
	Bankura									NH	NH	0.17	0.17	62.76	40.63	
	Bankura									NH	NH	0.05	0.05	60.06	41.11	
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	0.53	0.53	60.06	40.06	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
	Bankura	Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
	Bankura	Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
Bankura										NH	NH	NH	?	?	?	
Bankura										NH	NH	NH	?	?	?	
Bankura										NH	NH	NH	?	?	?	
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
NORTH-WEST BENGAL	Bankura	Bankura								NH	NH	NH	?	?	?	
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?	?	?
		Bankura									NH	NH	NH	?		

## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 14th of November 1890—contd.

Division.	District.	Station.	RAINFALL.							TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1890.	Average rainfall from 15th May to date.
			Saturday, 8th November.	Sunday, 9th November.	Monday, 10th November.	Tuesday, 11th November.	Wednesday, 12th November.	Thursday, 13th November.	Friday, 14th November.	Number rainy days.	of Rainfall week.				
NORTH-BENGAL.	Nagbhal	Gourmaddi	...	...	...	...	...	...	...	NI	NI	NI	0	42.00	...
		Barphai	...	...	...	...	...	...	...	NI	NI	NI	0	78.80	...
		Nagbhal	...	...	...	...	...	...	...	NI	NI	NI	1.72	92.34	100.86
		Barphai	...	...	...	...	...	...	...	NI	NI	NI	2.87	103.40	103.94
	Farrakka	Madaripore	...	...	...	...	...	...	...	NI	NI	NI	0.39	41.91	54.98
		Farrakka	...	...	...	...	...	...	...	NI	NI	NI	0.28	40.43	67.18
		Gomundoo	...	...	...	...	...	...	...	NI	NI	NI	0.29	40.90	67.38
		Gomundoo	...	...	...	...	...	...	...	NI	NI	NI	0.29	40.90	67.38
	Dacca	Munshingunge	...	...	...	...	...	...	...	NI	NI	NI	0.01	57.74	80.01
		Dacca	...	...	...	...	...	...	...	NI	NI	NI	0.44	54.58	87.92
		Munshingunge	...	...	...	...	...	...	...	NI	NI	NI	0.44	54.58	87.92
		Munshingunge	...	...	...	...	...	...	...	NI	NI	NI	0.44	54.58	87.92
	Hill Tipperah	Agartala	...	...	...	...	...	...	...	NI	NI	NI	0.02	67.84	60.41
		Agartala	...	...	...	...	...	...	...	NI	NI	NI	0.71	67.84	74.90
		Chandpur	...	...	...	...	...	...	...	NI	NI	NI	0.43	64.78	74.90
		Chandpur	...	...	...	...	...	...	...	NI	NI	NI	0.43	64.78	74.90
	Mymensingh	Shahabuddin	...	...	...	...	...	...	...	NI	NI	NI	0.01	76.11	...
		Shahabuddin	...	...	...	...	...	...	...	NI	NI	NI	0.01	76.11	...
		Shahabuddin	...	...	...	...	...	...	...	NI	NI	NI	0.01	76.11	...
		Shahabuddin	...	...	...	...	...	...	...	NI	NI	NI	0.01	76.11	...
NORTH-BENGAL.	Fulbari	Fulbari	...	...	...	...	...	...	...	NI	NI	NI	0.14	46.98	53.84
		Fulbari	...	...	...	...	...	...	...	NI	NI	NI	0.14	46.98	53.84
		Fulbari	...	...	...	...	...	...	...	NI	NI	NI	0.14	46.98	53.84
		Fulbari	...	...	...	...	...	...	...	NI	NI	NI	0.14	46.98	53.84
	Nogra	Nogra	...	...	...	...	...	...	...	NI	NI	NI	0.58	77.80	57.74
		Nogra	...	...	...	...	...	...	...	NI	NI	NI	0.58	77.80	57.74
		Nogra	...	...	...	...	...	...	...	NI	NI	NI	0.58	77.80	57.74
		Nogra	...	...	...	...	...	...	...	NI	NI	NI	0.58	77.80	57.74
	Rajshahi	Rajshahi	...	...	...	...	...	...	...	NI	NI	NI	0.05	72.20	52.40
		Rajshahi	...	...	...	...	...	...	...	NI	NI	NI	0.05	72.20	52.40
		Rajshahi	...	...	...	...	...	...	...	NI	NI	NI	0.05	72.20	52.40
		Rajshahi	...	...	...	...	...	...	...	NI	NI	NI	0.05	72.20	52.40
	Maidan	Maidan	...	...	...	...	...	...	...	NI	NI	NI	0.05	64.65	50.04
		Maidan	...	...	...	...	...	...	...	NI	NI	NI	0.05	64.65	50.04
		Maidan	...	...	...	...	...	...	...	NI	NI	NI	0.05	64.65	50.04
		Maidan	...	...	...	...	...	...	...	NI	NI	NI	0.05	64.65	50.04
	Dinapore	Dinapore	...	...	...	...	...	...	...	NI	NI	NI	0.05	67.94	55.84
		Dinapore	...	...	...	...	...	...	...	NI	NI	NI	0.05	67.94	55.84
		Dinapore	...	...	...	...	...	...	...	NI	NI	NI	0.05	67.94	55.84
		Dinapore	...	...	...	...	...	...	...	NI	NI	NI	0.05	67.94	55.84
	Buckpur	Buckpur	...	...	...	...	...	...	...	NI	NI	NI	0.05	124.00	63.04
		Buckpur	...	...	...	...	...	...	...	NI	NI	NI	0.05	124.00	63.04
		Buckpur	...	...	...	...	...	...	...	NI	NI	NI	0.05	124.00	63.04
		Buckpur	...	...	...	...	...	...	...	NI	NI	NI	0.05	124.00	63.04
NORTH-BENGAL.	Jalpaiguri	Jalpaiguri	...	...	...	...	...	...	...	NI	NI	NI	0.05	130.26	216.71
		Jalpaiguri	...	...	...	...	...	...	...	NI	NI	NI	0.05	130.26	216.71
		Jalpaiguri	...	...	...	...	...	...	...	NI	NI	NI	0.05	130.26	216.71
		Jalpaiguri	...	...	...	...	...	...	...	NI	NI	NI	0.05	130.26	216.71
	Oodch Behar	Oodch Behar	...	...	...	...	...	...	...	NI	NI	NI	0.05	129.96	94.44
		Oodch Behar	...	...	...	...	...	...	...	NI	NI	NI	0.05	129.96	94.44
		Oodch Behar	...	...	...	...	...	...	...	NI	NI	NI	0.05	129.96	94.44
		Oodch Behar	...	...	...	...	...	...	...	NI	NI	NI	0.05	129.96	94.44
	Darjeeling Hill	Darjeeling Hill	...	...	...	...	...	...	...	NI	NI	NI	0.05	174.31	107.17
		Darjeeling Hill	...	...	...	...	...	...	...	NI	NI	NI	0.05	174.31	107.17
		Darjeeling Hill	...	...	...	...	...	...	...	NI	NI	NI	0.05	174.31	107.17
		Darjeeling Hill	...	...	...	...	...	...	...	NI	NI	NI	0.05	174.31	107.17
	Farakka	Farakka	...	...	...	...	...	...	...	NI	NI	NI	0.05	105.38	60.04
		Farakka	...	...	...	...	...	...	...	NI	NI	NI	0.05	105.38	60.04
		Farakka	...	...	...	...	...	...	...	NI	NI	NI	0.05	105.38	60.04
		Farakka	...	...	...	...	...	...	...	NI	NI	NI	0.05	105.38	60.04
	North Bengal	North Bengal	...	...	...	...	...	...	...	NI	NI	NI	0.05	115.55	46.00
		North Bengal	...	...	...	...	...	...	...	NI	NI	NI	0.05	115.55	46.00
		North Bengal	...	...	...	...	...	...	...	NI	NI	NI	0.05	115.55	46.00
		North Bengal	...	...	...	...	...	...	...	NI	NI	NI	0.05	115.55	46.00
	Darrabong	Darrabong	...	...	...	...	...	...	...	NI	NI	NI	0.05	81.70	42.07
		Darrabong	...	...	...	...	...	...	...	NI	NI	NI	0.05	81.70	42.07
		Darrabong	...	...	...	...	...	...	...	NI	NI	NI	0.05	81.70	42.07
		Darrabong	...	...	...	...	...	...	...	NI	NI	NI	0.05	81.70	42.07
	Measuripore	Measuripore	...	...	...	...	...	...	...	NI	NI	NI	0.05	55.94	40.07
		Measuripore	...	...	...	...	...	...	...	NI	NI	NI	0.05	55.94	40.07
		Measuripore	...	...	...	...	...	...	...	NI	NI	NI	0.05	55.94	40.07
		Measuripore	...	...	...	...	...	...	...	NI	NI	NI	0.05	55.94	40.07



## Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 14th of November 1890—continued

Meteorological Division.	District.	Station.	RAINFALL.							Total.		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 1st May 1890.	Average rainfall from 1st May to date.
			Saturday, 8th November.	Sunday, 9th November.	Monday, 10th November.	Tuesday, 11th November.	Wednesday, 12th November.	Thursday, 13th November.	Friday, 14th November.	Number of rainy days.	of Rainfall week.				
NORTH BENGAL—continued.	Chhamparan...	Motihari	...	...	...	...	...	...	...	...	...	...	...	72.06	...
		Buxi Bazar	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Buxi Bazar	...	...	...	...	...	...	...	...	...	...	...	64.88	...
SOUTH BENGAL	Baran	Gopalpur	...	...	...	...	...	...	...	...	...	...	...	62.67	...
		Buxi Bazar	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Buxi Bazar	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	Shahabad	Buxi Bazar	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Buxi Bazar	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Buxi Bazar	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	Gya	Aurangabad	...	...	...	...	...	...	...	...	...	...	...	62.67	...
		Gya	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Nowadul	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	Patna	Patna	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Patna	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Patna	...	...	...	...	...	...	...	...	...	...	...	64.88	...
CENTRAL BENGAL	Monghyr	Bogota	...	...	...	...	...	...	...	...	...	...	...	62.67	...
		Monghyr	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Monghyr	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	South Bhagalpur	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	South Patna	Patna	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Patna	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Patna	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	Bhagalpur	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
WEST BENGAL	Burdwan	Burdwan	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Burdwan	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Burdwan	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	Hooghly	Hooghly	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Hooghly	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Hooghly	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	Medinipur	Medinipur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Medinipur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Medinipur	...	...	...	...	...	...	...	...	...	...	...	64.88	...
	Bardhaman	Bardhaman	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Bardhaman	...	...	...	...	...	...	...	...	...	...	...	64.88	...
		Bardhaman	...	...	...	...	...	...	...	...	...	...	...	64.88	...

Explanation.—...Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 18th November 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, THE 14th  
OF NOVEMBER 1890.**

Fine weather has prevailed almost without interruption over the whole province throughout the week, and the general conditions have undergone very little change from day to day. Pressure has been above the normal, and temperature after the first day or two has been steadily falling. Wind circulation, except towards the end of the week, was westerly in the western districts, and gradually became more northerly towards the east. In the Bay steady northerly winds of light or moderate force have blown almost continuously.

At the beginning of the week pressure was very high, readings being over 30 inches at all stations, and diminishing from 30·1 in the north of Bengal to a little over 30 inches in the extreme south of the Bay. Southerly winds were blowing in Chutia Nagpur and the west of South Behar, owing to a local high-pressure area over the country surrounding Gya, Hazaribagh, and Ranigunge, which caused faintly defined anti-cyclonic winds in its neighbourhood. Temperature was falling in the northern districts and rising in South-West and North Bengal and Assam, while nearly all stations reported light cloud. Pressure began to fall very slowly on the 9th, and the cloudy weather continued, a light shower of rain being reported from Cuttack. The fall of pressure was moderate on the 10th, but conditions underwent no change, except that light showers were more frequent in Orissa and a few drops fell at Buxa and Darjeeling. Till about the end of the week there was no further change, pressure tended to become more uniform, and low in the northern districts, especially on the 13th, when westerly or south-westerly winds blew at nearly all stations, and on the 14th notwithstanding the general rise.

*Pressure*—Was considerably above the normal at the beginning of the week and afterwards very nearly normal. Means are therefore in excess at all stations by amounts varying from ·02 inch over the greater part of the province to ·05 inch in East Bengal.

*Temperature*—Has been steadily falling and almost always below the normal. From the table below, giving mean temperature at representative stations, it may be seen that defect has been almost the same in maximum and minimum readings; the only notable differences occurring at Darjeeling, where the mean night temperature is above the normal by 1·6° and the day temperature below by about 1°; and at Purneah, where defect was considerably greater during the day than at night. The mean for Orissa is normal, and for the other districts below—North Bengal by 4°, South-West-Bengal and Chutia Nagpur by 7°, East Bengal and South Behar by 1·6°, and North Behar by 1·9°.

The warmest days were the 9th and 10th in Lower Bengal, and the 13th and 14th in North Bengal and Behar, maximum temperature being generally between 82° and 84°. The coldest nights were the 11th and 12th in all districts except North Bengal and the adjacent part of North Behar, where temperature was lowest on the 9th and 10th:—

*Table showing the excess or defect of the actual mean temperature from the normal for the week ending the 14th of November 1890.*

	Normal mean maximum temperature for the week ending 14th November.	Actual mean maximum temperature for the week ending 14th November 1890.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 14th November.	Actual mean minimum temperature for the week ending 14th November 1890.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 14th November.	Actual mean daily temperature for the week ending 14th November 1890.	Variation of actual mean from the normal.
Cuttack	80·3	80·7	+0·4	67·0	68·7	+1·7	73·9	72·7	-1·2
Dalratia	82·5	80·0	-2·5	65·1	64·0	-1·1	74·3	72·4	-1·9
Diocia	80·1	82·0	+1·9	67·8	65·3	-2·5	70·6	74·0	+3·4
Haziribagh	84·0	83·0	-1·0	63·2	64·9	+1·7	74·0	74·0	0·0
Patna	83·3	81·3	-2·0	61·8	60·1	-1·7	73·4	70·9	-2·5
Gya	84·3	82·0	-2·3	60·0	60·0	0·0	72·5	71·0	-1·5
Purneah	83·4	81·2	-2·2	60·0	59·7	-0·3	72·2	70·0	-2·2
Hazaribagh	78·3	77·0	-1·3	60·0	62·1	+2·1	68·7	67·1	-1·6
Darjeeling	84·9	84·4	-0·5	41·0	43·5	+2·5	48·4	48·9	+0·5

*Rainfall*.—A few light showers fell in Orissa in the early part of the week, giving a mean fall of ·08 inch. The other districts have been rainless.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 14th of November, 1890:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.				Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May 1890.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.	Average.		Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.	
Orissa ... ..	87°0	59°0	84°5	58°5	76°4	0	0°08	0°15	-0°05	0°4	0°2	+0°2	1°50	0°58	53°27	52°19	
South-West Bengal ...	86°5	57°5	82°8	54°4	73°0	-0°7	Nil	0°04	-0°04	0°0	0°1	-0°1	0°17	0°28	56°43	51°39	
East Bengal ... ..	87°5	59°0	81°8	54°9	73°3	-1°0	Nil	0°10	-0°10	0°0	0°3	-0°3	0°17	0°70	79°42	75°34	
North Bengal ... ..	83°8	59°3	81°5	52°7	72°1	-0°4	Nil	0°05	-0°05	0°0	0°1	-0°1	0°22	0°43	105°00	99°50	
North Behar ... ..	83°2	55°5	80°8	50°7	70°8	-1°0	Nil	0°01	-0°01	0°0	0°1	-0°1	Nil	0°02	64°39	47°02	
South Behar ... ..	84°8	54°5	81°8	58°5	70°5	-1°3	Nil	0°04	-0°04	0°0	0°1	+0°1	0°00	0°12	51°20	45°00	
Central Nepal ... ..	79°2°	51°2°	77°6°	50°7°	65°1°	-0°7°	Nil	0°06	-0°06	0°0	0°1	-0°1	0°02	0°20	46°00	40°14	

\* Chyabassa not included.

METEOROLOGICAL OFFICE, BENGAL;  
The 18th November 1890.

C. LITTLE,  
Offg. Meteorological Reporter to the Govt. of Bengal.

#### Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 9th to 15th November 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall per 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour pressure at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches
November...	9th ...	30.058	77.8	84.7	13.9	70.8	79.6	74.5	.787	73.0	78	...
"	10th ...	.029	73.6	81.9	16.0	65.3	77.8	68.6	.678	63.0	61	...
"	11th ...	.090	72.4	81.1	17.5	63.6	78.4	68.8	.604	59.2	62	...
"	12th ...	.016	72.6	82.4	19.7	62.7	75.4	65.2	.461	58.4	66	...
"	13th ...	.015	72.4	82.0	21.0	61.9	76.6	66.8	.527	60.4	69	...
"	14th ...	.041	73.1	82.9	19.7	63.2	77.6	68.0	.580	63.2	61	...
"	15th ...	.037	78.0	81.0	16.1	64.0	75.6	67.6	.658	62.0	64	...

The mean 10 A.M. pressure of the seven days ... .. 30.032  
 The mean temperature of the seven days ... .. 73.6  
 The extreme variation of temperature ... .. 22.8  
 The maximum temperature ... .. 84.7

The mean 10 A.M. relative humidity of the seven days ... .. 61

The total fall of rain from 9th to 15th November 1890 ... .. Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;  
The 17th November 1890.

## MEMORANDUM.

Weekly review of births and deaths in twenty-seven of the principal towns of Bengal, for the week ending with Saturday, the 25th October 1890.

## BIRTHS.

The births registered during the week ending with Saturday, the 25th October 1890, in twenty-seven principal towns of Bengal correspond to an annual rate of 19.4 per 1,000 of the aggregate population of those towns, which is 1,061,574. This rate is 7.2 below the average rate of the corresponding week of the past five years, and is also below the rate of the corresponding week of any of the past five years with which comparison is instituted—*vide* the figures below :—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years, 1885-89.	1890.
Ratio of births per 1,000 of the population per annum	25.6	27.1	23.9	31.3	26.3	26.2	19.4

The births registered in each of the last four weeks in each of the twenty-seven principal towns correspond to the following rates per 1,000 of the population :—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.	25th Oct. 1890.		4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.	25th Oct. 1890.
Burdwan	53.6	13.7	33.6	13.7	Narainganj	37.3	40.7	24.8	70.4
Midnapore	17.0	14.8	7.7	7.7	Chittagong	1.4	0.4	0.4	...
Ranchi and Chinsurah	35.0	41.0	40.3	27.2	Cumilla	15.4	27.0	27.0	45.2
Serampore	47.1	40.1	23.8	49.3	Patna City	18.8	12.3	14.3	12.3
Uttarpara	0.4	87.7	47.2	...	Gya	30.0	30.7	30.6	12.3
Howrah	25.2	22.2	24.0	24.2	Arrah	47.0	42.5	20.3	21.5
Bali	38.1	31.3	38.1	21.0	Muzaffarpore	24.3	20.2	21.0	24.3
Krishnagar	22.5	9.5	14.0	15.1	Darbhanga	40.0	43.3	37.0	36.2
Banarhat	14.0	12.0	18.0	18.0	Chupra	38.2	48.5	40.3	11.1
Santipore	24.3	17.3	8.8	...	Bhawalpur	20.3	42.8	10.3	...
Jessore	...	0.1	6.1	12.2	Manikpur	57.0	58.8	37.1	40.1
Ranpore Baidash	65.1	39.4	31.5	34.8	Purneah	10.4	20.8	6.9	12.9
Darjiling	32.3	61.3	31.0	14.8	Roorky	14.7	19.0	16.8	16.8
Dacca	13.0	12.8	24.0	13.0	Total	20.7	29.5	23.0	10.4

It will be seen that last week the highest birth-rate was returned from Narainganj (70.4) and the lowest from Midnapore (7.7). No births were registered during the week in Uttarpara, Santipore, Chittagong and Bhawalpur towns.

## DEATHS.

The deaths registered during the week under review correspond to an annual rate of 20.4 per 1,000 of the population. The rate of the week is 10.5 below the average rate of the corresponding week of the past five years, and also below the rate of the corresponding week of any of the past five years with which comparison is instituted—*vide* the figures below :—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years, 1885-89.	1890.
Ratio of deaths per 1,000 of the population per annum	32.6	30.0	25.3	34.3	29.3	30.9	20.4

The deaths registered in each of the last four weeks in each of the twenty-seven towns correspond to the following rates per 1,000 of the population :—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.	25th Oct. 1890.		4th Oct. 1890.	11th Oct. 1890.	18th Oct. 1890.	25th Oct. 1890.
Burdwan	20.5	24.4	23.9	32.0	Narainganj	15.6	37.3	24.8	41.4
Midnapore	15.8	27.0	12.4	5.7	Chittagong	0.4	10.4	14.1	...
Ranchi and Chinsurah	24.5	27.0	35.5	14.8	Cumilla	7.7	15.4	11.0	33.1
Serampore	29.4	42.2	47.1	30.6	Patna City	14.8	20.4	15.0	15.0
Uttarpara	26.2	23.3	37.7	...	Gya	47.1	54.0	60.1	39.8
Howrah	18.0	17.8	17.8	12.3	Arrah	13.3	23.0	12.0	8.4
Bali	24.0	22.1	24.2	22.1	Muzaffarpore	35.5	34.3	38.9	14.5
Krishnagar	13.0	6.7	7.0	3.4	Darbhanga	55.4	30.7	20.5	30.9
Banarhat	12.3	8.2	24.0	24.0	Chupra	31.2	37.2	20.1	...
Santipore	12.3	8.2	8.2	...	Bhawalpur	14.5	14.5	17.2	...
Jessore	16.4	36.8	...	30.3	Manikpur	30.7	27.3	21.7	31.4
Ranpore Baidash	34.8	44.7	48.0	49.0	Monkhyr	10.4	17.3	6.3	30.8
Darjiling	32.4	44.3	31.0	44.5	Purneah	10.4	17.3	6.3	30.8
Dacca	17.0	16.3	18.2	23.9	Roorky	25.2	42.0	23.2	18.9
Total	24.0	25.5	22.3	20.4					

It will be seen that last week the highest mortality occurred in the town of Serampore (69·8) and the lowest in Krishnagar (3·8). No deaths were registered during the week in Uttarpara, Santipore, Chittagong and Bhagulpore towns.

Measured by last week's mortality, the highest annual death-rates from cholera, fever and other causes occurred in the following towns:—

Cholera.		Fever.		Other causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Chupra ...	7·0	Darjiling ...	44·5	Serampore ...	13·7
Mozufferpore ...	6·1	Rampore Beaulah ...	38·8	Gya ...	12·9
Arrah ...	6·0	Serampore ...	31·4	Peerri ...	12·6
Patna City ...	3·6	Jessore ...	30·6		
Monghyr ...	3·6	Narsinganj ...	24·8		
Darbhanga ...	3·1	Gya ...	21·2		

The total mortality from the several registered death-causes in the twenty-seven principal towns amounted to 1·4 from cholera, against 2·2 per 1,000 in the preceding week; 10·4 from fever, against 11·; 2·8 from bowel-complaints, against 3·7; 4 from injury, against 1; and 4·8 from other causes, against 5·7 in the preceding week. The mortality from bowel-complaints is noticeably severe only in the Serampore town, there being six deaths (11·8 per 1,000 of the population). No deaths were registered from small-pox during the week.

The mortality of last week according to *Sex*, *Class*, and *Age* was as follows:—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males ...	19·6	Christians ...	7·5	Under 1 year	143·1
Females ...	21·3	Hindus ...	20·1	1 and under 5 years	30·8
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population ...	92	Mahomedans ...	19·6	5 " 10 "	16·0
				10 " 15 "	10·3
				15 " 20 "	11·6
				20 " 30 "	8·6
				30 " 40 "	10·0
				40 " 50 "	12·9
				50 " 60 "	13·1
				60 years and upwards	51·4

Detailed information regarding the vital statistics of the twenty-seven principal towns dealt with in the above review will be found in the statement appended.

W. H. GREGG, *Dip. Publ. Health, Camb.*,

The 15th November 1890.

Sanitary Commissioner for Bengal.

NAMES OF MUNICIPALITIES.		POPULATION.			BIRTHS.			MORTALITY ACCORDING TO—												Sex.													
		Males.		Total.	NUMBER OF—			RATIO PER 1,000 OF POPULATION PER ANNUM.			DISEASE.											RATIO PER 1,000 OF POPULATION PER ANNUM.											
											DEATHS FROM—																						
Males.		Females.		Total.	Males.			Females.			Total.			RATIO PER 1,000 OF POPULATION PER ANNUM.			DISEASE.									Males.		Females.		Ratio of male deaths to the total deaths in the population.			
																	DEATHS FROM—																
Males.		Females.		Total.	Males.			Females.			Total.			RATIO PER 1,000 OF POPULATION PER ANNUM.			DISEASE.									Males.		Females.		Ratio of male deaths to the total deaths in the population.			
																	DEATHS FROM—																

[illegible]



## CIRCULAR AND EASTERN CANALS.

Approximate Return of Traffic for the week ending Saturday, the 8th November 1890, as compared with the corresponding week of the previous year.

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 8TH NOVEMBER 1890.			WEEK ENDING SATURDAY, THE 8TH NOVEMBER 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	394	62,105	925	250	56,825	835
Jute	403	2,58,175	4,002	351	1,62,711	2,729
Firewood	139	62,125	865	213	93,975	1,403
Other articles	1,029	2,62,850	4,268	1,291	2,36,385	4,005
Total	1,964	6,45,255	10,600	2,105	5,39,896	9,132

## CIRCULAR AND EASTERN CANALS.

Approximate Return of Traffic for the week ending Saturday, the 15th November 1890, as compared with the corresponding week of the previous year.

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 15TH NOVEMBER 1890.			WEEK ENDING SATURDAY, THE 15TH NOVEMBER 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	407	67,840	977	188	39,075	583
Jute	346	1,71,475	3,942	339	1,82,525	3,218
Firewood	152	87,125	1,249	166	1,23,415	1,279
Other articles	1,284	3,13,425	4,513	982	2,16,445	3,452
Total	2,189	6,39,865	9,781	1,675	5,59,460	8,554

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 8th November 1890, on 1,525½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIL-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	722,310	7,95,075 8 0	21,35,550 0	6,01,032 5 0	14,840 15 0	9,12,957 7 4	69,547	54,766	124,313
Or per mile of railway	193 15 2			399 9 3	10 1 0	598 7 4			
For previous 19 weeks of half-year	4,010,200	41,74,096 5 0	3,31,20,139 0	76,39,872 13 0	3,01,035 0 8	1,21,08,974 9 2	1,132,201	1,351,902	2,503,466
Total for 19 weeks	4,230,608	44,79,571 8 0	3,53,13,950 0	82,41,805 3 0	3,06,404 0 8	1,30,18,682 0 2	1,251,748	1,436,051	2,687,799
COMPARISON.									
Total for corresponding week of previous year	223,446	3,43,506 12 6	20,76,641 30	6,63,735 8 3	21,222 0 10	9,17,324 14 7	65,967	21,236	146,271
Per mile of railway corresponding week of previous year	146 10 0	224 9 0	136 10 0	432 13 0	13 14 7	601 7 4			
Total to corresponding date of previous year	4,562,230	48,03,568 15 0	3,94,13,925 20	82,33,047 4 0	3,26,891 6 0	1,35,41,387 8 9	1,340,766	1,515,616	2,856,382

\* The decrease in coaching traffic is due to figures for the corresponding period of 1889 having included traffic on account of "Rash Poonima" and Sonaper fair.

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1888.

RECEIPTS FOR WEEK ENDING 5TH NOVEMBER 1890.			RECEIPTS FOR WEEK ENDING 5TH NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 5TH NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 5TH NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Rs.	Rs.
1,525½	9,17,324	601	1,525½	9,12,957	598	1,525½	7,95,075 8 0	520	1,525½	2,41,37,812	404	Rs.	17,32,127

## PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 8th November 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week	10,807	Rs. A. P. 5,876 1 0	Mds. S. 53,318 10	Rs. A. P. 5,478 12 0	Rs. A. P. 23 0 0	Rs. A. P. 9,878 8 0	1,861½	561	2,422½
Or per mile of railway	189	102 11 6	930 20	95 13 1	0 0 7	168 15 6	.....	.....	.....
For previous 18 weeks of half-year	308,477	1,34,894 8 0	5,70,730 20	50,300 4 0	601 15 0	1,62,993 11 0	23,960½	6,960	30,920½
Total for 18 weeks	210,244	1,50,170 9 0	6,25,423 20	41,579 0 0	633 8 0	1,72,375 1 0	25,841½	10,124	35,965½
COMPARISON.									
Total for corresponding week of previous year	23,354	12,868 9 0	30,898 0	2,157 0 0	47 8 0	15,044 14 0	1,946	460	2,406
Per mile of railway corresponding week of previous year	408½	224 12 10	540 10	37 8 0	0 13 2	268 15 10	.....	.....	.....
Total to corresponding date of previous year	308,911	1,51,222 8 0	5,50,863 20	46,003 18 0	798 8 0	1,54,093 12 0	26,830	12,724	39,554

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1893.

RECEIPTS FOR WEEK ENDING 8TH NOVEMBER 1889.			RECEIPTS FOR WEEK ENDING 6TH NOVEMBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 8TH NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 6TH NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
57½	Rs. 16,446	Rs. 283	57½	Rs. 9,273	Rs. 164	57½	Rs. 5,09,002	Rs. 168	57½	Rs. 1,00,120	Rs. 163	.....	Rs. 6,903

## TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 8th November 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week	18,121	Rs. A. P. 4,837 3 0	Mds. S. 12,078 30	Rs. A. P. 511 1 0	Rs. A. P. 6 8 0	Rs. A. P. 5,354 12 0	912	6	918
Or per mile of railway	806	210 10 8	.....	22 15 8	0 4 7	238 14 0	.....	.....	.....
For previous 18 weeks of half-year	290,747	70,773 6 0	1,08,770 30	6,510 6 0	94 4 0	75,311 11 0	16,266	538	17,004
Total for 18 weeks	208,908	70,664 8 0	1,21,858 0	4,361 7 0	120 10 6	80,416 7 0	17,168	804	18,082
COMPARISON.									
Total for corresponding week of previous year	22,576	5,922 12 8	12,780 10	519 8 0	4 9 6	6,417 14 8	839	75	914
Per mile of railway corresponding week of previous year	.....	263 4 8	.....	22 15 1	2 3 4	288 7 1	.....	.....	.....
Total to corresponding date of previous year	341,509	83,903 11 0	1,74,878 20	4,785 0 0	108 3 0	88,093 14 0	17,474	1,329	18,803

Approximate Statement of gross receipts of the Tarkeessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1893.

RECEIPTS FOR WEEK ENDING 8TH NOVEMBER 1889.			RECEIPTS FOR WEEK ENDING 6TH NOVEMBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 8TH NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 6TH NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
22½	Rs. 6,418	Rs. 288	22½	Rs. 5,208	Rs. 224	22½	Rs. 1,70,751	Rs. 240	22½	Rs. 1,05,263	Rs. 269	.....	Rs. 4,465

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., Dacca, K. D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic for week ended 1st November 1890, on 763 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-bus.	Total earnings.	TRAFFIC TRAIN-MILES RY.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	134,177	80,855 0 0	7,60,484 0	9,04,870 0 0	22,240 0 0	3,00,110 0 0	21,508	37,450	58,958
Or per mile of railway	171	81 0 0	978 0	255 0 0	190 0 0	370 0 0	.....	.....	.....
For previous 17 weeks of half-year	2,239,537	9,55,069 0 0	97,63,253 0	24,43,535 0 0	2,49,448 0 0	30,93,356 0 0	566,597	535,617	1,102,214
Total for 18 weeks	2,422,744	10,55,419 0 0	1,05,09,547 0	25,53,145 0 0	2,77,232 0 0	32,23,306 0 0	588,449	593,077	1,181,526
COMPARISON.									
Total for corresponding week of previous year	165,336	84,428 0 0	8,09,547 0	1,51,357 0 0	56,368 0 0	2,74,708 0 0	11,302	30,550	41,852
Or per mile of railway corresponding period of previous year	219	115 0 0	816 0	205 0 0	126 0 0	343 0 0	.....	.....	.....
Total to corresponding date of previous year	2,458,124	11,04,851 0 0	1,12,78,227 0	27,45,241 0 0	3,38,806 0 0	44,53,593 0 0	604,208	657,632	1,261,840

\* Audited up to week ending 30th August 1890.  
† Excluding steam-bus earnings.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1890.			RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO END NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 1ST NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
167	Rs. 2,74,708	Rs. 363	753	Rs. 2,00,016	Rs. 263	712	Rs. 62,69,037	Rs. 266	709	Rs. 32,72,064	Rs. 271	Rs. 69,017	.....

\* Audited up to week ending 30th August 1890.

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 1st November 1890, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RY.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	22,606	2,100 0 0	55,291 0	4,650 0 0	50 0 0	15,900 0 0	1,660	1,902	3,562
Or per mile of railway	181	72 0 0	486 0	37 0 0	.....	110 0 0	.....	.....	.....
For previous 17 weeks of half-year	426,004	1,31,440 0 0	6,21,376 0	50,597 0 0	1,672 0 0	1,04,814 0 0	64,659	54,364	119,023
Total for 18 weeks	448,612	1,44,140 0 0	7,26,568 0	61,237 0 0	2,722 0 0	1,06,114 0 0	66,290	56,578	122,868
COMPARISON.									
Total for corresponding week of previous year	27,078	10,800 0 0	35,810 0	2,522 0 0	250 0 0	12,631 0 0	1,667	2,046	3,713
Or per mile of railway corresponding week of previous year	217	86 0 0	286 0	20 0 0	2 0 0	100 0 0	.....	.....	.....
Total to corresponding date of previous year	680,408	1,63,534 0 0	10,94,872 0	1,04,280 0 0	2,162 0 0	1,71,539 0 0	68,295	44,983	113,278

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1890.			RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO END NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 1ST NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
125	Rs. 11,681	Rs. 108	125	Rs. 12,000	Rs. 119	125	Rs. 4,51,212	Rs. 116	125	Rs. 2,72,022	Rs. 96	.....	Rs. 77,004

\* Audited up to week ending 30th August 1890.

## DACCA STATE RAILWAY.

Approximate Return of Traffic for week ended 1st November 1890, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	15,626	4,770 0 0	22,925 0	2,110 0 0	160 0 0	10,440 0 0	2,410	894	3,304
Or per mile of railway ...	189	55 0 0	265 0	24 0 0	2 0 0	117 0 0			
For previous 17 weeks of half-year ...	232,466	81,319 0 0	3,74,266 0	23,280 0 0	4,435 0 0	*1,00,144 0 0	40,871	12,660	53,531
Total for 18 weeks ...	248,092	86,089 0 0	3,97,191 0	25,490 0 0	4,595 0 0	2,10,164 0 0	43,782	13,754	57,536
COMPARISON.									
Total for corresponding week of previous year ...	19,964	6,424 0 0	26,675 0	2,707 0 0	28 0 0	7,109 0 0	2,826	712	3,538
Per mile of railway corresponding period of previous year ...	232	75 0 0	307 0	31 0 0		107 0 0			
Total to corresponding date of previous year ...	265,254	84,744 0 0	4,08,430 0	21,516 0 0	4,768 0 0	1,80,323 0 0	44,893	15,753	60,646

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1889.			RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO END NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 1ST NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	9,199	107	86	10,040	117	86	1,94,962	75	86	*2,01,048	75	5,443	—

\* Audited up to week ending 30th August 1890.

## NALHATI STATE RAILWAY.

Approximate Return of Traffic for week ended 1st November 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week ...	2,647	3,050 0 0	13,615 0	330 0 0	10	1,680 0 0	500	240	740
Or per mile of railway ...	97	110 0 0	494 0	12 0 0		60 0 0			
For previous 17 weeks of half-year ...	49,747	17,595 0 0	1,78,503 0	9,584 0 0	260	*37,420 0 0	9,252	2,504	11,756
Total for 18 weeks ...	52,394	18,645 0 0	1,92,118 0	10,914 0 0	270	37,510 0 0	9,752	2,744	12,496
COMPARISON.									
Total for corresponding week of previous year ...	3,945	1,190 0 0	3,665 0	220 0 0	21	1,461 0 0	586	228	814
Per mile of railway corresponding period of previous year ...	123	44 0 0	134 0	8 0 0	1	53 0 0			
Total to corresponding date of previous year ...	55,549	20,223 0 0	1,53,965 0	10,077 0 0	1,367	31,695 0 0	10,838	3,510	14,348

\* Audited up to week ending 30th August 1890.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1889.			RECEIPTS FOR WEEK ENDING 1ST NOVEMBER 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO END NOVEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 1ST NOVEMBER 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	1,451	53	27½	1,830	66	27½	27,275	63	27½	*25,221	56	—	1,054

\* Audited up to week ending 30th August 1890.

## BENGAL AND NORTH-WESTERN AND TIRHOOT RAILWAYS.

COMBINED SYSTEM.

Approximate Return of Traffic for Week ended 16th August 1890, on 691 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	74,790	Rs. 29,094	Mds. 2,69,324	Rs. 21,331	Rs. 6,619	Rs. 66,024	11,686	11,151	22,837
Or per mile of railway ...	108'13	42'04	390'02	30'63	9'59	95'55	...	...	...
For previous 5 weeks of half-year ...	421,819	1,64,823	14,56,193	1,55,831	24,090	3,62,343	55,325	69,237	124,562
Total for 5 weeks ...	(a) 404,033	1,82,804	(b) 14,74,390	1,37,369	* 41,409	4,21,307	75,035	93,438	168,473
<b>COMPARISON.</b>									
<i>Audited figures.</i>									
Total for corresponding week of previous year (640 miles) ...	76,407	29,919	3,00,883	45,743	8,090	80,633	10,061	16,925	26,986
Or per mile of corresponding week of previous year ...	119'61	46'73	470'04	71'45	12'67	126'24	...	...	...
Total to corresponding date of previous year ...	645,008	1,80,897	22,03,033	1,03,728	68,405	5,11,400	75,610	68,338	143,948

\* Steam-boat earnings for the week, Rs. 4,590.  
Do. do. to date, " 30,719.

## FINANCIAL YEAR.

Approximate Statement of gross receipts.

RECEIPTS FOR WEEK ENDING 16TH AUGUST 1890.			RECEIPTS FOR WEEK ENDING 17TH AUGUST 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 16TH AUGUST 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 17TH AUGUST 1890.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
691	Rs. 49,094	Rs. 68'55	640	Rs. 30,833	Rs. 48'14	693	Rs. 17,61,613	Rs. 132'25	640	Rs. 18,27,347	Rs. 144'79	.....	Rs. 22,635

(a) Excludes 18,568 passengers, being traffic common to B. and N.-W. and T. Railways.  
(b) Do. 76,745 mounds, do. do. do.

## BENGAL AND NORTH-WESTERN AND TIRHOOT RAILWAYS.

COMBINED SYSTEM.

Approximate Return of Traffic for week ended 23rd August 1890, on 691 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	75,048	Rs. 29,794 0 0	Mds. 2,47,344 0	Rs. 20,684 0 0	Rs. 7,010 0 0	Rs. 68,990 0 0	12,636	11,867	24,503
Or per mile of railway ...	108'76	43'12 0 0	358'24 0	30'25 0 0	10'16 0 0	93'53 0 0	...	...	...
For previous 5 weeks of half-year ...	490,933	1,62,606 0 0	14,74,390 0	1,37,369 0 0	41,409 0 0	4,21,307 0 0	75,035	89,438	164,473
Total for 5 weeks ...	(a) 509,014	2,31,400 0 0	(b) 19,51,834 0	2,17,333 0 0	* 40,319 0 0	4,52,657 0 0	87,726	93,106	180,832
<b>COMPARISON.</b>									
<i>Audited figures.</i>									
Total for corresponding week of previous year (640 miles) ...	76,100	29,751 0 0	3,00,847 0	41,526 0 0	7,016 0 0	73,075 0 0	9,929	16,921	26,850
Or per mile of corresponding week of previous year ...	118'61	46'48 0 0	470'04 0	64'63 0 0	10'81 0 0	113'60 0 0	...	...	...
Total to corresponding date of previous year ...	630,703	2,14,928 0 0	25,54,009 0	3,03,114 0 0	65,436 0 0	5,84,566 0 0	82,639	1,15,664	198,303

\* Steam-boat earnings for the week, Rs. 6,900.  
Do. do. to date, " 39,270.

## FINANCIAL YEAR.

Approximate Statement of gross receipts.

RECEIPTS FOR WEEK ENDING 23RD AUGUST 1890.			RECEIPTS FOR WEEK ENDING 24TH AUGUST 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 23RD AUGUST 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 24TH AUGUST 1890.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
691	Rs. 68,990	Rs. 98'53	640	Rs. 73,075	Rs. 114'00	693	Rs. 16,13,337	Rs. 131'54	640	Rs. 16,00,423	Rs. 140'36	.....	Rs. 87,934

(c) Includes 19,318 passengers, being traffic common to B. and N.-W. and T. Railways.  
(d) Do. 1,00,945 mounds, do. do. do.

## BENGAL AND NORTH-WESTERN AND TIRHOOT RAILWAYS.

## COMBINED SYSTEM.

Approximate Return of Traffic for week ended 30th August 1890, on 691 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week (on 691 miles open) ...	63,323	Rs. 23,840	Mds. 2,54,730	Rs. 21,772	Rs. 6,009	Rs. 61,621	11,969	11,909	23,878
Or per mile of railway ...	91.80	34.53	368.67	31.50	8.70	88.76	17.32	17.24	34.56
For previous 7 weeks of half-year ...	509,014	2,32,400	19,21,936	2,17,683	69,310	4,60,637	87,739	92,105	179,844
Total for 8 weeks ...	(a) 681,338	2,56,240	(b) 21,76,694	2,49,710	75,320	5,36,270	99,708	1,04,210	203,918
COMPARISON.									
Audited figures.									
Total for corresponding week of previous year, 649 miles open ...	74,080	24,751	8,76,406	31,347	6,809	33,867	9,993	13,615	23,608
Or per mile of railway corresponding week of previous year ...	114.16	38.16	13,643.86	48.15	10.49	52.38	15.55	21.12	36.67
Total to corresponding date of previous year ...	694,843	2,36,773	20,00,614	2,36,961	72,312	4,45,873	93,434	130,475	223,909

\* Steam-boat earnings for the week, Rs. 4,900.  
Do. do. to date, .. 49,930.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal and North-Western and Tirhoot Railways.

RECEIPTS FOR WEEK ENDING 30th AUGUST 1890.			RECEIPTS FOR WEEK ENDING 31st AUGUST 1890.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 30th AUGUST 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 31st AUGUST 1889.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
691	61,621	89.18	640	63,947	99.76	606	19,76,936	139.08	640	19,63,025	139.73	.....	88,088

(a) Excludes 22,083 passengers, being traffic common to Bengal and North-Western Railway.  
(b) Do. 1,22,012 mounds, ditto ditto.

## BENGAL AND NORTH-WESTERN AND TIRHOOT RAILWAYS.

## COMBINED SYSTEM.

Approximate Return of Traffic for week ended 1st November 1890, on 601 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week (on 601 miles open) ...	66,700	Rs. 29,130	Mds. 2,51,680	Rs. 48,010	Rs. 10,090	Rs. 64,120	22,394	14,750	37,144
Or per mile of railway ...	111.00	48.47	422.28	80.04	16.80	81.31	37.34	24.61	61.95
For previous 16 weeks of half-year ...	1,231,210	4,78,079	41,30,194	5,12,230	1,06,167	10,91,145	303,476	189,510	492,986
Total for 17 weeks ...	1,307,910	4,90,230	44,00,874	5,67,290	1,16,157	11,76,300	315,870	204,260	520,130
COMPARISON.									
Audited figures.									
Total for corresponding week of previous year, 549 miles open ...	82,103	33,303	2,80,361	34,122	10,813	57,998	10,890	10,917	21,807
Or per mile of railway corresponding week of previous year ...	150.16	60.70	510.76	62.17	19.70	70.87	19.84	19.88	39.72
Total to corresponding date of previous year ...	1,291,443	4,76,236	43,63,175	5,34,420	1,04,906	11,59,373	307,130	223,736	530,866

\* Steam-boat earnings for the week, Rs. 7,500.  
Ditto ditto to date, .. 69,900.

\* Ajodhya bridge earnings for the week, Rs. 100.  
Ditto ditto to date, .. 4,850.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal and North-Western and Tirhoot Railways.

RECEIPTS FOR WEEK ENDING 1st NOVEMBER 1890.			RECEIPTS FOR WEEK ENDING 1st NOVEMBER 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 1st NOVEMBER 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st NOVEMBER 1889.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
601	64,120	106.70	640	67,230	105.07	673	24,06,300	130.70	640	24,06,331	130.15	22,023	.....

N.W.—Earnings of B. and N.W. Section.  
Week ended 1-11-90.

Coaching	Rs. 14,070
Goods	10,379
Other earnings	8,400
Total	32,849

Week ended 1-11-89.	Rs. 16,130
	9,923
	8,803
Total	34,856

Earnings of Tirhoot Section.  
Week ended 1-11-90.

Rs.	Ls.
15,000	14,841
29,540	14,801
6,210	3,013
<hr/>	<hr/>
40,750	30,655



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, NOVEMBER 26, 1890.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

## CONTENTS.

Page.	Page.
REPORT on the state of the Salt Market for the second quarter of 1890-91 ... 2310	RESULTS of the Meteorological Observations taken at the Alipore Observatory from 18th to 22nd November 1890 ... 2412
Resolution reviewing the Reports on the Working of Municipalities in Bengal during 1889-90 ... 2361	Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 1st November 1890 ... 2414
Works of public utility constructed in 1889 ... 2393	South-Western Circle—Nuddes Rivers during the month of September 1890 ... 2418
Rainfall, Weather, and State and Prospects of the Crops ... 2395	South-Western Circle—Orissa Coast Canal System during the month of September 1890 ... 2420
Prices-current (retail) of Food-grains, Firewood and Salt in the Head-quarter Station Bazaars of the districts of Bengal on the 15th November 1890 ... 2400	South-Western Circle—Calcutta and Eastern Canals during the month of September 1890 ... 2420
Meteorological Report of the Province of Bengal for the week ending Friday the 21st of November 1890 ... 2406	Circular and Eastern Canals for the week ending 22nd November 1890 ... 2423
Statement of Rainfall in Bengal for the week ending Friday (9 a.m.), the 21st of November 1890 ... 2408	Eastern Bengal State Railway for the month of August 1890 ... 2424
Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 15th to 22nd November 1890 ... 2413	East Indian Railway for the month of October 1890 ... 2425
	Weekly Return of Traffic Receipts on Indian Railways ... 2426

## REPORT ON THE STATE OF THE SALT MARKET FOR THE SECOND QUARTER OF 1890-91.

No. 890B, dated Calcutta, the 14th November 1890.

From—K. G. GUPTA, Esq., Secretary to the Board of Revenue, L.P.

To—The Secretary to the Government of Bengal, Financial Department.

I AM directed by the Board of Revenue to submit the following report on the state of the salt market for the second quarter of 1890-91, comprising the months of July, August, and September 1890.

SALT.

The HON'BLE F. M. HALLIDAY.

2. The quantity of salt of every description cleared during the quarter under report amounted to 25,14,577 maunds 20 seers 8 chittacks, against 28,51,986 maunds 8 seers 5 chittacks in the previous quarter, and 23,98,512 maunds 30 seers 14 chittacks in the corresponding quarter of the previous year; and the net amount of duty levied thereon was Rs. 58,64,525-11, against Rs. 62,34,543-12 in the previous quarter, and Rs. 55,10,452-14 in the corresponding quarter of the previous year.



3. The quantity of excise salt sold in Orissa during the quarter under review and the quantity which remained in store at the close of the quarter are shown in table I:—

TABLE I.

			Outlook.	Poorce.	Balaore.
				Mds. s.	Mds. a.
Balance at close of the last quarter	...	...	.....	81,882 0	1,670 0
Manufactured or added during the quarter	...	...	.....	59,964 0	990 0
Total	...	...	.....	1,41,846 0	2,660 0
Sales during the quarter	...	...	.....	36,102 20	...
Wastage	...	...	.....	.....	.....
Total	...	...	.....	36,102 20	.....
Balance at close of the quarter	...	...	.....	1,05,743 20	2,660 0

4. The total sale of excise salt during the quarter under review amounted to 36,102 maunds 20 seers, against 46,297 maunds in the previous quarter and 12,101 maunds in the corresponding quarter of the previous year.

5. The subjoined table shows in comparison the importations into the Port of Calcutta and the total clearances of sea-imported salt during the quarter under review and the corresponding quarters of the previous two years:—

TABLE II.

		1888-89.		1889-90.		1890-91.	
		3rd quarter.		3rd quarter.		3rd quarter.	
		Imported.	Cleared.	Imported.	Cleared.	Imported.	Cleared.
		Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Liverpool pungah	...	33,42,544	30,31,996	14,67,169	17,14,848	19,43,147	16,16,693
Foreign kurkutch	...	8,49,848	2,03,473	2,29,083	4,00,468	6,07,896	8,14,903
Indian ditto	...	1,81,550	1,43,394	1,04,228	1,67,468	1,65,638	1,94,678
Total	...	27,73,942	24,79,867	18,00,480	22,82,808	26,01,681	25,26,274

6. The following are the details of the Indian kurkutch salt shown in the above table:—

TABLE III.

		1888-89.		1889-90.		1890-91.	
		3rd quarter.		3rd quarter.		3rd quarter.	
		Imported.	Cleared.	Imported.	Cleared.	Imported.	Cleared.
		Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Bombay	...	1,41,584	1,46,340	1,58,982	1,57,208	1,58,838	1,51,778
Cochin	...	...	...	9,796	9,796	2,796	2,796
Madras	...	...	...	500	500	...	...
Bangalore	...	...	...	...	...	...	...
Total	...	1,41,584	1,46,340	1,69,278	1,67,404	1,61,634	1,54,570

7. Table IV shows the quantity of sea-imported salt remaining in the warehouses at the close of the quarter as compared with the results of the previous four quarters:—

TABLE IV.

WAREHOUSES.		Second quarter of 1889-90.	Third quarter of 1889-90.	Fourth quarter of 1889-90.	First quarter of 1890-91.	Second quarter of 1890-91.
		Mds.	Mds.	Mds.	Mds.	Mds.
Bombay	Government godowns	21,05,203	17,41,840	22,11,048	19,00,647	21,34,396
Chittagong	ditto	1,42,880	67,007	2,31,403	99,003	88,576
Total	...	22,48,083	17,08,847	24,42,451	19,99,650	22,22,972

8. The despatches of salt from Calcutta by water and the three railways passing the several salt-pass stations into the interior of the country, both east and west of the river Hooghly, during the quarter under review and the corresponding quarters of the previous two years, are shown in the table below:—

TABLE V.

PERIOD.	Via Belikhal.	Via Bankrail.	Via Gowakhal.	Via Kidderpore.	Via Ballinghatta.	Via Buchtollah Ghat.	By the East Indian Railway.	By the Eastern Bengal and South-Eastern Railway or old Chittore.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Second quarter of 1888-89 ...	4,22,371	1,55,312	45,223	1,25,110	3,24,979	8,090	7,26,777	2,37,088
Ditto of 1889-90 ...	4,40,757	1,41,318	40,019	85,825	8,77,037	2,802	8,12,079	1,96,457
Ditto of 1890-91 ...	4,09,399	1,47,062	63,162	1,11,070	3,73,486	1,527	8,20,608	3,05,488

9. The quantity of salt despatched by the East Indian Railway to stations beyond Buxar during the quarter under review amounted to 3,037 maunds 20 seers, as noted in the margin, against 3,841 maunds 10 seers in the previous quarter and 1,518 maunds 30 seers in the corresponding quarter of the previous year.

10. The shipments of Liverpool salt for the Port of Calcutta, according to published market reports, were as follow:—

		Tons.
July ...	...	24,930
August ...	...	12,490
September ...	...	23,840
Total ...	...	61,260

11. Table VI shows the market price per 100 maunds of Liverpool and other descriptions of salt at the close of each fortnight during the quarter as compared with those obtaining during the same period last year:—

TABLE VI.

DESCRIPTION OF SALT.	Prices on the 15th July		Prices on the 31st July		Prices on the 15th August		Prices on the 31st August		Prices on the 15th September		Prices on the 30th September	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Liverpool punnah ...	82	81	82	84	86	77	80	78	88	73	95	77
French kurkutch ...	61	...	61	...	...	...	...	...	...	...	...	...
Jodda ditto ...	52	50	52	49	55	47	55	44	55	45	...	...
Bombay ditto ...	70	50	70	62	70	55	70	65	80	55	65	55
Italian ditto ...	63	...	63	...	...	...	...	...	...	...	...	...
Muscot ditto ...	63	55	63	61	62	53	62	53	55	45	55	45
Rock ...	75	70	75	70	75	65	75	65	75	60	75	60

12. The following table shows the quantity of sea-imported salt admitted into bond and cleared from bond and shipboard at Chittagong and Narain-gunge during the quarter under review and the corresponding quarter of 1889-90:—

TABLE VII.

PORT.	DESCRIPTION OF SALT.	ADMITTED INTO BOND.		CLEARED.	
		Second quarter of 1889-90.	Second quarter of 1890-91.	Second quarter of 1889-90.	Second quarter of 1890-91.
		Mds. s.	Mds. s.	Mds. s.	Mds. s.
Chittagong	Liverpool punnah ...	55,356 0	50,298 0	60,047 23	31,000 0
	Burmah ditto ...	...	...	0 5	...
	Madras kurkutch ...	...	...	0 15	...
	Bromon ...	...	...	...	12,072 0
Naraingunge	Liverpool punnah and Evemen salt ...	...	...	44,054 0	46,464 11
	Total ...	55,356 0	50,303 0	1,04,102 3	51,536 11

No transactions in sea-imported salt have been reported for the quarter from the Ports of Cuttack, Pooree, and Balasore.

**RESOLUTION REVIEWING THE REPORTS ON THE WORKING  
OF MUNICIPALITIES IN BENGAL DURING 1889-90.**

**MUNICIPAL DEPARTMENT—MUNICIPAL.**

*Calcutta, the 21st November, 1890.*

**RESOLUTION.**

**Read—**

The reports from the several Commissioners of Divisions on the working of the Municipalities in Bengal (except Calcutta) during the year 1889-90.

**Read again—**

The Resolution reviewing the divisional reports on the working of Municipalities during the year 1888-89.

The following Resolution reviews the reports submitted by Commissioners of Divisions on the working of municipalities during the year 1889-90.

2. *Number of Municipalities.*—The total number of municipalities in existence at the close of the year was 147 as in the preceding year. The municipalities of Assensole and of the Suburbs of Calcutta were abolished for reasons explained in paragraph 4 of last year's Resolution; and two new municipalities, namely Cossipore-Chitpore and Manicktollah, comprising portions of the Suburban Municipality, were established during the year. Since the close of the year the Khagoul and Garwa municipalities have been abolished.

The statement in Appendix A shows the date of establishment of each municipality in the province, the population within municipal limits, and the actual number of rate-payers in each. The average proportion of rate-payers to the whole population in the municipalities for which complete figures are given was 17·9 per cent., against 17·85 of the previous year.

3. *Elective System.*—The system under which two-thirds of the total number of Commissioners fixed for each municipality are elected by the rate-payers was in force in all the municipalities except those named below:—

Bettiah.	Garwa.	Lohardugga.
Chanduria.	Jajpore.	Nalchitty.
Chogda.	Jamui.	Netrokona.
Chyobassa.	Jehanabad.	Perozepore.
Colgong.	Jhalda.	Raghunathpore.
Cox's Bazar.	Jhalokati.	Roserah.
Daltongunga.	Julpigoree.	Sitamarhi.
Darjeeling.	Kendrapara.	Sonamuki.
Daudnugger.	Khoolna.	Tikari.
Debhatta.	Lalgunge.	

4. *Results of elections held during the year.*—The two newly-formed municipalities of Cossipore-Chitpore and Manicktollah having been allowed the franchise, the first general elections were held in them. Out of 3,026 and 1,507 registered voters in those towns, 944 and 822 persons respectively attended the poll and voted. The elections were warmly contested in several wards, and it is said that the people generally took a lively interest in the matter. Of 103 bye-elections held under section 27 to fill up vacancies in the ranks of Commissioners, 91 were conducted successfully; the remaining 12 failed owing to nominations of candidates not having been submitted by the electors, within the time prescribed by the rules. The largest attendance of voters at the poll was 70·7 of the total number of qualified voters. These minor elections, the details of which are furnished in the table in Appendix B, appear to have excited no particular interest in most cases.

5. *Constitution of Committees.*—The following statement shows, division by division, the constitution of the Committees of the various municipalities during the year:—

Division.	Nominated.	Elected.	Total.	Officials.	Non-officials.	Europeans.	Native of India.	REMARKS.
Burdwan	188	283	471	48	316	21	543	The professional occupation of Municipal Commissioners is not stated in all the Reports. This point is, however, one of much importance and full information will be given in future years.
Presidency	300	357	657	55	604	24	653	
Rajshahye	88	97	185	44	141	26	180	
Dacca	110	107	217	33	184	12	205	
Chittagong	33	40	73	17	56	5	67	
Patna	179	180	359	78	281	46	354	
Bhagulpore	79	86	165	22	143	23	161	
Orissa	42	55	97	25	72	5	87	
Chota Nagpore	71	27	98	22	76	10	88	
Total	908	1,144	2,112	345	1,767	199	1,859	

The following table shows the percentage of officials and Europeans to the total number of Commissioners during 1889-90 and the previous eight years:—

	Officials.	Europeans.		Officials.	Europeans.
1881-82	26.3	22.9	1886-87	15.6	9.1
1882-83	25.3	21.7	1887-88	16.2	9.4
1883-84	24.5	21.2	1888-89	16.0	8.9
1884-85	18.0	12.1	1889-90	16.1	9.0
1885-86	16.1	10.1			

It is clear that, so far as the *personnel* of the Municipal Committees is concerned, full scope has been given to the principle of allowing the townspeople to manage their own affairs.

6. *Meetings of Committees.*—The largest number of meetings held by any

Name of Municipality.	No. of meetings.	Percentage of attendance.
Kandi	23	91.8
Debbhatta	25	87.5
Cossipore-Chitpore	11	87.5
Coluong	15	86.3
Satkhira	25	84.1

municipality was 41 at Serampore with an average attendance of 56.8 per cent. of the members. The highest average percentage of attendance was attained in the municipalities noted in the margin.

The following table shows the municipalities which held more than twenty meetings with the average percentage of attendance at each meeting:—

DISTRICT.	Name of Municipality.	Number of meetings.	Average percentage of attendance.
Hooghly	Serampore	41	56.8
Howrah	Bali	32	63.7
Pooree	Pooree	31	49
Nuddea	Santipore	28	40.8
Patna	Dinapore Nizamut	27	59.4
Rajshahye	Nattore	27	46
Nuddea	Coomarkholly	27	43.3
Burdwan	Burdwan	26	54.7
Khoolna	Debbhatta	25	87.5
	Satkhira	25	84.1
Furzedpore	Madaripore	25	66.6
Burdwan	Dainhat	24	61.5
Dacca	Dacca	24	47.6
Moorsshedabad	Kandi	23	91.8
Maldah	Old Maldah	23	35.8
Mymensing	Shorepore	23	32.7
24-Pergunnahs	Baranagore	22	70
	Joynagore	22	60.8
Furzedpore	Furzedpore	22	44.4
Moorsshedabad	Jungipore	22	41.6
Manbhoom	Raghunathpore	22	25.4
24-Pergunnahs	North Barrackpore	21	57.7
Mymensingh	Nasirabad	21	56
Howrah	Howrah	21	54.3
Burdwan	Cutwa	21	46.6
Nuddea	Ranaghat	21	44.6
Tipperah	Coomilla	21	43.3

The smallest number of meetings was held in the municipalities of Balasore and Jugdishpore, where the Commissioners met only once a quarter with an average percentage of attendance of 62.5 and 50 respectively.

Detailed information on the subject of the meetings held by the various municipalities is given in Appendix C. The attendance was on the whole satisfactory, and the statistics show that a large amount of time and trouble was gratuitously and unsparingly devoted by the Municipal Commissioners to the discharge of their duties.

7. *Municipal Benches.*—The Municipal Benches in the province tried 16,604 cases of nuisance and breach of conservancy rules, in which 14,730 persons were convicted and 2,209 acquitted. The average amount of fines imposed on each offender varied from Rs. 4-2-8 in Jamalpore, in the Monghyr district, to Re. 0-2-1 in the Nuddea Municipality. The statement below shows the work done in detail:—

Division.	Name of the Municipal Bench.	Number of cases tried.	Number of persons convicted.	Number of persons acquitted.	Number of persons remaining under trial at the close of the year.	Amount of fines inflicted.	Amount of fines realised.
Burdwan	Burdwan	1,078	931	188	18	Rs. 401 10 0	Rs. 363 0 0
	Culna	118	102	17	...	38 8 6	38 8 6
	Cutwa	11	11	...	...	5 12 0	5 12 0
	Dainhat	18	12	1	4	2 6 0	2 5 0
	Ranagarunge	185	191	4	...	68 8 0	68 3 0
	Hooghly and Chinsurah	270	257	17	...	459 12 0	459 12 0
	Serampore	118	107	18	2	165 4 0	150 4 0
	Uttarpara	66	80	1	...	103 15 0	96 15 0
	Danabaria	88	72	16	...	27 0 0	27 4 0
	Baidyabati	163	155	8	2	239 5 0	230 5 0
	Bhadrabar	119	101	5	13	108 10 0	108 10 0
	Kotrung	20	20	1	...	23 0 0	23 0 0
	Howrah	2,692	2,332	100	7	4,050 15 0	5,481 0 3
	Bali	204	217	32	...	154 0 0	179 6 0*
	Midnapore	896	818	105	...	346 8 0	189 1 0
	Tamluk	175	183	7	...	92 9 0	92 9 0
	Ghatal	40	44	3	...	15 14 0	15 14 0
	Chandrakona	120	135	...	...	120 3 0	113 15 0
	Total	5,945	5,295	584	46	5,418 0 6	7,760 11 9
Presidency	North Dum-Dum	91	91	3	...	89 8 0	89 8 0
	South ditto	101	86	18	...	163 11 0	163 8 0
	Joybager	62	62	11	...	60 0 0	60 0 0
	Goverdanga	15	16	3	...	20 6 0	20 6 0
	Barripore	149	120	8	15	114 8 0	114 6 0
	Rajpore	240	226	21	1	168 12 0	183 12 0
	South Barrackpore	150	133	32	1	203 0 0	203 0 0
	South Suburban	209	124	65	...	207 0 0	207 0 0
	Baranagar	98	74	27	2	42 4 0	42 4 0
	North Barrackpore	194	257	55	9	261 10 0	261 10 0
	Krishnagar	162	153	18	1	196 1 0	196 1 0
	Nuddea	239	138	6	...	30 11 0	30 11 0
	Bansghat	64	74	14	...	51 1 0	51 1 0
	Santipore	213	188	34	2	188 13 0	127 12 0
	Jessore	111	159	40	...	211 13 6	196 12 6
	Moheshpore	48	64	5	16	42 10 0	42 10 0
	Kotaehandpore	41	34	7	...	62 9 3	62 9 3
	Barhampore	184	145	46	2	158 13 0	168 13 0
	Total	7,604	7,225	426	52	7,219 11 9	7,197 11 9
Rajshahy	Natore	99	90	9	...	85 0 0	86 0 0
	Sherepore	75	64	11	...	43 0 0	34 0 0
	Total	174	154	20	...	128 0 0	120 0 0
Dacca	Dacca	407	357	68	9	264 0 0	264 0 0
	Nurungunge	120	123	2	...	223 3 0	228 3 0
	Furcedpore	74	86	1	1	37 4 0	37 4 0
	Burrial	80	27	5	...	40 2 0	40 2 0
	Total	691	545	74	10	569 9 0	569 9 0
Chittagong	Chittagong	88	54	47	...	68 15 0	68 15 0

\* Including arrears.

Division.	Name of the Municipal Bench.	Number of cases tried.	Number of persons convicted.	Number of persons acquitted.	Number of persons remaining under trial at the close of the year.	Amount of fines realized.	Amount of fines realized.
Patna	Patna	2,129	1,554	200	2	Rs. 4 0	Rs. 4 0
	Barh	235	211	24	...	115 15 0	115 15 0
	Gya	903	708	191	4	1,013 18 6	1,078 6 0*
	Daudnagar	23	7	20	...	75 0 0	75 0 0
	Arrah	287	180	101	...	210 2 0	210 2 0
	Muzafferpore	879	795	154	...	891 5 8	891 5 8
	Dorbhanga	636	749	10	...	268 9 6	268 9 6
	Madhubani	290	340	11	...	131 14 8	131 14 8
	Rosera	208	184	44	...	499 1 0	199 1 0
	Chupra	115	90	25	...	60 8 0	60 8 0
	Kevilgunge	112	145	21	1	181 12 0	181 12 0
Total		4,776	5,210	826	7	4,046 14 6	4,106 2 9
Bhagalpore	Monghyr	269	218	78	65	738 0 6	738 0 6
	Jamulpore	51	88	15	...	158 8 0	158 8 0
	Bhagalpore	738	600	121	17	420 13 8	420 13 8
	Cokong	191	164	88	NB	88 14 6	77 9 0
	Sahobgunge	237	227	10	...	192 9 0	192 9 0
Total		1,486	1,247	252	82	1,696 2 9	1,687 13 9
GRAND TOTAL		16,804	14,780	2,308	187	17,044 4 6	16,411 0 0

\* The excess of Rs. 50-7-6 represented arrears collections.

A Municipal Bench was established during the year at Tikari, but its working commenced from 19th March last. There were no Municipal Benches in any of the municipalities in the Chota Nagpore and Orissa Divisions.

8. Assessments.—The statement in Appendix D shows the mode of assessment prevailing in each municipality in the province, the rate at which the tax on holdings or on persons according to their circumstances and property within municipal limits was levied, and the result of any revision of assessment made during the year. The tax on holdings was in force in 36 municipalities, and was levied at rates below the maximum ( $7\frac{1}{2}$  per cent. per annum on the annual value of holdings) in the following 13 places:—

Name of Division.	Name of Municipality	Rate of tax.
Burdwan	Hooghly and Chinsurah	6½
Presidency	Krishnaghar	6
	Ranaghat	6½
	Santipore	6½
Rajshahye	Darjeeling	7
Dacca	Dacca	8
	Naraingunge	6
Patna	Sewan	7
Bhagalpore	Monghyr	6
	Jamulpore	7
	Bhagalpore	5
	Purneah	8
	Sahobgunge	3½

The legal maximum in these municipalities is 10 per cent.

In regard to the Burdwan Division the Commissioner remarks:—"The maximum rate of  $7\frac{1}{2}$  per cent. was levied in all the municipalities in which the tax on holdings was in force, with the exception of Hooghly and Chinsurah, where it was only  $6\frac{1}{2}$  per cent. This town has many sanitary wants, and the full rate might, I think, be levied with advantage to the health of the inhabitants. The people are exceedingly well off, and I see no reason why the rate should be lower in this town than in the others." This observation is applicable to most of the other municipalities specified in the above statement. In the Bhagalpore Division the rate is levied below the maximum in every place where a rate is imposed, and it seems that in both Bhagalpore and Monghyr it should be increased: it is satisfactory to see that in Sahobgunge, where the rate is the lowest in the province, it has been raised to 5 per cent. in the current year. In the Nuddea Municipalities, the rates are still unduly low. It is not too much to say that in all municipal towns in Bengal there is a crying want of funds to meet expenditure which is gradually being

forced upon the Commissioners, especially in the direction of improved sanitation. It is equally true that, whether the taxation is based on assessment of holdings, or (as Appendix D will show is more usually the case) on persons according to their circumstances and property, the present rate of taxation is exceedingly low and far from oppressive on the rate-payers. The tax on persons varies at rates from 8 annas to one rupee per cent. on the estimated income of the assessee. The average incidence of municipal taxation throughout Bengal (excluding Calcutta) during the past year was only 11 annas and 11 pies per head of the population, and in no less than 67 municipalities the incidence is so low that it amounts to 8 annas or less per head. The lowest place in the list is taken by Lalgunge in Mozufferpore, where the rate is only two annas and seven pies. By way of comparison it may be noted—the figures are taken for the year 1886-87—that the incidence per head of municipal taxation proper (exclusive of Presidency towns) is in Bombay Re. 1-4-5 and in the Punjab Re. 1-2-6. In Madras it is annas 11-11 and in the North-Western Provinces annas 11-1. These figures show how very moderate is the incidence of municipal taxation in India generally; and especially that it is low in Bengal, where the wealth of the people and their standard of comfort are greater than in other provinces. It is obvious therefore that there is scope for some increase in municipal taxation; and unless there is such an increase, it is impossible that reforms can be undertaken. Under sections 88 and 97 of the law the period during which an assessment once made shall continue in force should be three years only. The object of this provision is that the assessment of holdings and of the tax upon persons should be revised periodically as the prosperity of towns increases; but in many cases it is to be feared that the law is overlooked, and the old assessment allowed to continue unchanged for too long a period. As an instance of this neglect, the Lieutenant-Governor observes that a general revision of assessment was made during the past year in the Comilla Municipality after so long a period as twelve years. On the other hand, His Honour recognises the signs of more vigorous municipal administration in several important places, and he is glad to take this opportunity of intimating to Municipal Commissioners and the local executive authorities that they will always receive the support of Government in the discharge of the responsible duty of revising assessments. The duty is unfortunately a very invidious one, and in its fulfilment the Commissioners must often, as the reports of the past year sufficiently indicate, expect to incur serious unpopularity and obstruction; but the Lieutenant-Governor has no doubt that as a body they will not shrink from it on this account. The enforcement of proper municipal taxation in order to accomplish municipal improvements, and especially sanitary reform, of which all the towns in Bengal are so greatly in need, is one of the most distinguishing marks of efficiency and aptitude in local self-government.

9. During the past year assessments were revised either generally or partially in 43 municipalities. The revision resulted in a loss of income in five places, viz., Burdwan (Rs. 469), Raneegunge (Rs. 142), Ramjibanpore (Rs. 7), Tikari (Rs. 1,166), and Behar. In the Durbhunga Municipality the assessment was revised, and, with the sanction of Government, the tax on persons was substituted for the rate on holdings. The tax is fixed at the rate of 1 per cent., and all persons having an income of less than Rs. 6 a month have been exempted. The net increase has not yet been determined, but it was expected to be about Rs. 6,000. The Lieutenant-Governor trusts that this expectation will be realised; but he is concerned to notice an observation in the Commissioner's General Administration Report, that the income of the municipality, "instead of increasing as was estimated, has fallen off, and when the Maharajah resumes possession of his market, which has been decreed to him by order of the Civil Court, there will be a further reduction." The reason of this apparent failure is not explained, but it is presumed that it is due to the opposition of the rate-payers, and is temporary only. Under somewhat similar circumstances the amount of increase obtained by revision of assessments in the Rampore Beaulah Municipality is reported to have been Rs. 2,042. The rate of tax on income of persons was raised from 8 to 12 annas per cent., and is therefore still very low, but the effect of the revision is thus described by the Chairman in his report:—"A hue and cry was raised, in which those whose



assessments had not been increased, nay, even those who had been exempted from assessment, joined. The municipal office was literally besieged with objection petitions. A memorial was sent to His Honour the Lieutenant-Governor, complaining against the enhancement. A party of men, who affected to pose as friends of the poor, but who really had at heart some grudge against the municipality, actively set about rousing the people against it under this colourable pretext. For nearly two months there was scarcely any collection of house-tax. Everybody refused to pay. It was a time of serious trial of the Municipal Commissioners. By a policy of conciliation and firmness, and by promptly deciding the objections, order was restored." In Santipore, Purulia, Chupra, Monghyr, Cuttack, and Comillah, revisions of assessment led to increase of taxation unaccompanied apparently by any administrative difficulty. But in the petty municipality of Jugdishpore, in the Shahabad district, where the revision resulted only in an increase of Rs. 100 in the income, dissensions rose so high that a criminal case was instituted by one Municipal Commissioner against another, and some of the rate-payers who had sided with him, for obstructing him as he was returning from the municipal office after deciding some objections against enhanced assessment, and for threatening to kill him in case the tax was increased. The accused were convicted and sentenced to pay fines, and the sentence was upheld in appeal. A case even more scandalous than this occurred in the Tikari Municipality, where the Chairman was violently assaulted at his house by a gang of hired *lattials* instigated, according to common report, by an opponent on the Municipal Board, and the Vice-Chairman, who was conspicuous in opposition, was removed from his post.

The year's record shows indeed that the path of duty is strewn with difficulties, which can only be overcome by honest perseverance, consistency, and firmness; but it may be expected that as experience is gained in the benefits derived from municipal improvement, the attitude of the rate-payers, as well as of the more retrograde and obstructive section of Municipal Commissioners, will become, as it has in other portions of the world, more tolerant of necessary taxation.

10. *Fresh imposts levied during the year.*—The provisions of the Act regarding the levying of a tax upon the annual value of holdings were extended during the year to the new municipalities of Cossipore-Chitpore, Manicktolla, and South Suburbs. Sanction was also accorded to the levy by the Commissioners of the Kurseong, Serampore, Bali, English Bazar, and Khoolna municipalities of fees for the cleansing of private latrines within portions, or entire limits, of the respective municipalities.

11. *Extension of various provisions of the Municipal Act and Bye-laws sanctioned during the year.*—The conservancy and other provisions of Part VI of the Act, or portions of them, were extended during the year to Berhampore, Joynugger, Nasirabad, Naihatti, Jungipore, Kishoregunge, English Bazar, Dinapore Nizamut, and Comillah.

Part IX of the Act, which regulates the construction and cleansing of latrines, was extended to Serampore (Mahesh and Rishra and Connagore wards), Bali (excepting the villages of Belur and Malipanchghara), English Bazar, Khoolna, and a portion of Dinapore.

Part X, which contains provisions for the regulation of markets, was extended to Soory, Bhagulpore, Bhabuah, and Lalbagh or City Moorshedabad.

Bye-laws were framed by the Commissioners of the following municipalities under section 350 of the Act, and confirmed by Government:—

Dinapore.	Jamui.	Bazitpore
Purulia.	Netrokona.	Comillah.
Nasirabad.	Gya	Bhagulpore.
Cuttack.	Raghunathpore.	Lalbagh.
Sherepore (district Mymen- singh).	Kishoregunge.	Kurseong.
Darjeeling.	Chupra.	Lohardugga.
	Burrial.	Furzedpore.

Rules for the protection of wild birds and game were framed by the Darjeeling and Cuttack Municipalities under Act XX of 1887, and confirmed by the Local Government.

12. *Income and expenditure.*—The following table compares the opening balances, income, expenditure and closing balances of municipalities, division by division, for the year 1889-90, and those of the preceding year:—

Division.	Opening balance.		Income during the year.		Total funds available for expenditure.		Total expenditure.		Closing balance.	
	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Burdwan	50,000	51,047	6,23,307	6,41,068	7,24,275	7,11,005	6,41,243	6,56,816	83,032	67,180
Presidency	1,24,240	56,041	9,43,036	5,12,323	10,67,276	5,68,864	9,46,493	4,93,493	1,18,083	74,571
Rajahmundry	50,403	33,195	2,75,876	2,76,253	3,25,234	3,09,363	2,93,179	3,71,463	83,105	37,900
Dacca	51,072	24,634	2,88,337	3,34,230	3,30,309	3,58,864	2,95,675	3,04,875	24,634	53,689
Chittagong	6,841	3,235	73,850	67,712	80,691	70,997	76,861	65,801	3,238	5,996
Patna	47,803	49,244	4,43,462	4,82,101	4,91,265	5,31,445	4,89,275	4,50,907	51,990	60,578
Bhagulpore	40,303	84,535	2,48,463	1,83,515	2,38,801	2,68,050	3,04,280	3,40,200	64,535	27,448
Orissa	7,023	1,868	89,521	80,786	96,543	88,654	94,735	85,020	1,868	3,634
Chota Nagpore	8,031	10,643	53,847	63,519	61,878	74,162	51,906	63,127	10,672	11,035
Total	4,07,668	3,46,402	30,49,764	26,47,502	34,57,352	29,93,904	30,42,963	29,31,468	4,11,207	3,62,436

The large discrepancy between the closing balance of 1888-89 of the municipalities in the Presidency Division and the opening balance for 1889-90, is due to the exclusion from the current accounts of the closing balance of Rs. 62,042 of the late municipality of the Suburbs of Calcutta. The small discrepancies in the other divisions have been explained by the local officers.

13. *Income.*—The total income of the municipalities in Bengal under Act III (B.C.) of 1884 amounted during the year to Rs. 26,47,502, against Rs. 30,49,764 of the previous year. This large apparent falling off is due to the dismemberment of the Suburban Municipality, and as the entire area included within that municipality has not been excluded from the operation of Act III (B.C.) of 1884, no satisfactory comparison can be made between the municipal accounts of 1889-90 and of previous years. Excluding, however, the income from the municipalities in the Presidency Division, the total income of all other municipalities shows an increase of Rs. 42,499 over the receipts of 1888-89. This increase is too small to be considered satisfactory, and is much less than that of previous years. The income from

taxation proper is shown, division by division (excluding the Presidency), in the following statement:—

	Burdwan.	Rajahmundry.	Dacca.	Chittagong.	Patna.	Bhagulpore.	Orissa.	Chota Nagpore.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1888-89	5,00,183	1,60,891	2,32,558	51,325	3,22,063	1,33,310	54,712	30,538	14,90,690
1889-90	5,07,501	1,68,252	2,23,819	45,148	3,58,813	1,40,138	65,834	38,541	15,48,006
Increase or decrease	+7,318	+7,361	-8,739	-6,177	+36,750	+6,828	+11,122	+8,003	+57,316

The general result shows some improvement, but it is not so marked as might be expected, looking to the low rate of taxation which prevails, and the urgent need that exists everywhere for increased income to meet necessary expenditure. In regard to the Dacca Division, it is explained that the net decrease is to a large extent nominal, as the collections in 1888-89 included arrears of previous years, and were therefore considerably in excess of the normal realisations. In the case of the Chittagong Municipality, it is stated that a decrease of about Rs. 8,000 in the collections is due partly to the same cause as in the Dacca Division, and partly to the fact that for nearly three months the sircars had to attend on the auditor who was examining the accounts, and that in

consequence the collections were smaller than ought to have been made. These excuses appear to the Lieutenant-Governor to be insufficient. It is satisfactory that the arrears have been liquidated, but they ought not to have been allowed to accrue. In any case it is to be regretted that the total gross collections show a falling off. It is a too common defect in Bengal municipalities that the executive is in arrear with its collections and it has been lately pointed out in a circular of Government that far greater promptitude must be insisted on in the collection or remission of taxes. Not more than one complete year of arrears should in any case be allowed. Municipalities which, like Ranchi and Kurseong, work in a business-like manner never have more than two quarters' arrears, and very often not more than one; and if municipalities in general avail themselves of the means provided in sections 120 to 129 of the Act, there is no reason why collections should ever be allowed to fall more than 12 months into arrear. As a matter of fact, in many municipalities the accounts are four or five years in arrear, and whenever this is the case it affords the clearest evidence of executive inefficiency.

14. The statement in Appendix E shows the details of income under each head, division by division, as compared with that of the year 1888-89. The total receipts from the municipalities in the eight divisions show an increase under the following heads:—

Heads of Revenue.				Amount of increase.
				Rs.
Taxation—				
Conservancy cess	...	...	...	29,277
License on trades	...	...	...	7,231
Tax on persons according to their circumstances and property	...	...	...	10,030
Tax on houses and lands	...	...	...	6,654
Tax on vehicles and animals	...	...	...	3,424
Tolls on roads and at ferries	...	...	...	

On the other hand, there was a decrease under major head "Miscellaneous" of Rs. 13,000.

15. *Conservancy Cess.*—A portion of the increase under this head is only apparent, being due to the proper classification of the receipts, and a sum of Rs. 10,437 thus appears under this head against the Patna Municipality and Rs. 7,798 against the municipality of Pooree. The tax was levied for the first time in the municipalities of Bogra (Rs. 1,605), Kurseong (Rs. 870), and Cuttack (Rs. 1,032). There was an increase of income, as compared with 1888-89, of Rs. 2,901 in the Midnapore Municipality, Rs. 1,983 in Rungpore, Rs. 1,777 in Serampore, and Rs. 1,739 in Monghyr. No explanation has been given of the decrease in Howrah, which amounted to Rs. 11,832.

16. *License on trades.*—The figures under this head are also affected by new classification. The increase in the Howrah Municipality amounted to Rs. 1,111.

17. *Tax on persons according to their circumstances and property, and tax on houses and lands.*—These two items have to be reviewed together as the receipts

Name of Municipality.	Rs.
Dinapore Nizamut	9,503
Kharar	2,274
Lohardugga	2,897
Daltingango	1,709
Total	15,442

were not accurately classified in the previous year. Deducting the income of Rs. 15,442 from the new municipalities noted in the margin, there was actually a falling off of Rs. 4,603 during the year, which was distributed among the Burdwan, Dacca, Chittagong, and Bhagulpore Divisions. There was a large increase of Rs. 3,408 in the Chota Nagpore Division,

excluding the income from the new municipalities, with small increases in the Patna, Orissa, and Rajshahye Divisions. The increase of income was largest in Midnapore (Rs. 3,328), Patna (Rs. 3,032), Hooghly (Rs. 1,978), Gya (Rs. 1,739), Purulia (Rs. 1,262); and there was a falling off in Dacca (Rs. 4,738), Chittagong (Rs. 8,870), Howrah (Rs. 2,774), Bhagulpore (Rs. 2,590), Revilgunge (Rs. 1,974).

18. *Tax on vehicles and animals.*—The main increase was in the Patna Division, where it amounted to Rs. 6,128, of which Rs. 3,618 occurred in the Gya Municipality. There was also a large increase of Rs. 4,122 in the municipality of Baranagore in the 24-Pergunnahs, and Rs. 3,211 in Howrah. Midnapore shows a falling off of Rs. 1,983.

19. *Tolls on roads and at ferries.*—No tolls are levied on any roads in any municipality in Bengal. The item therefore refers only to income from ferries. The increase occurred mainly in the Patna Division (Rs. 6,980), Chittagong (Rs. 1,700), and Orissa (Rs. 1,121). The Burdwan and Dacca Divisions show a falling off of Rs. 2,982 and Rs. 3,404 respectively. The accounts of the Mozufferpore Municipality show an increase of Rs. 6,670, due to the Victoria Bridge having been damaged by the flood and rendered unfit for traffic. The Chittagong Municipality shows an increase of Rs. 1,468, Cuttack of Rs. 2,386, Balasore of Rs. 1,265, and Lalbagh of Rs. 905.

The decrease in the Burdwan Division occurred in all the municipalities except Utterpara, Baidyabati, and Burdwan, where there was an increase. It was most marked in Hooghly (Rs. 1,398) and Serampore (Rs. 1,245). The decrease, amounting to Rs. 3,150, in the Dacca Municipality is attributed to a change in the system of accounts under which the advance collections have been credited to "Deposits" instead of under "Tolls," and this explanation no doubt accounts for the decrease in other places.

20. The receipts from municipal fines show a falling off from Rs. 32,028 to Rs. 29,992.

21. Water-rates are levied only in Burdwan and Darjeeling. The collections in both places show a small increase, as noted in the margin. The rate at Burdwan was levied at  $4\frac{1}{2}$  per cent. as in the preceding year, but the Lieutenant-Governor is glad to observe that, with reference to the necessity of extending the supply of filtered water to all parts of the town, the Municipal Commissioners have raised the rate to 5 per cent. for the current year. The rate at Darjeeling is  $2\frac{1}{2}$  per cent. only, and the increase is due to the imposition of the rate for the first time at Goompahar. No water-rate is yet levied in Bhagulpore, but it is, as the Commissioner points out, absolutely necessary either to levy a special rate or to increase the ordinary rate on holdings, if the much-needed extension of the water-works is to be carried out. In Mymensingh and Dacca the munificence of Raja Sarjya Kant Acharjya Bahadur and of Nawab Sir Abdul Ghunny, K.C.S.I., has rendered the imposition of a water-rate unnecessary.

22. The grants made to municipalities from Provincial or Local Funds during the year are detailed below:—

Name of municipality.	Amount of grant.	From what fund and for what purpose sanctioned.
	Rs.	
Burdwan	1,015	From Government as grant-in-aid to schools maintained by the municipality.
Bankeora	1,000	From the District Fund towards the cost of maintenance of the charitable dispensary and for medical aid to mofussil people.
	6,965	From Government for maintenance of the College and Collegiate School.
Midnapore	143	From Government for the Hindu Girls' School.
	485	From the Mohsin Fund for the part schooling-fee of Mahomedan boys of the Collegiate School.
	240	From the District Board towards the support of the Charitable Dispensary.
Tamlook	60	Ditto ditto.
Chandrakona	60	Ditto ditto.
Ramjibanpore	60	Ditto ditto.
Khairpai	120	Ditto ditto.
Khoolna	1,000	From Government for the maintenance of certain roads placed under the charge of the municipality.
Lalbagh	3,340	From Government on behalf of the Nizamut for the conservancy of the town.
	6,484	From Government for the maintenance of certain Government roads within the municipality.
Darjeeling	1,050	From the Darjeeling Improvement Fund for the repayment of the water-works loan and for the working of the Porters and Dandiwallas Act.

Name of municipality.	Amount of grant.	From what fund and for what purpose sanctioned.
	Rs.	
Rampore Beaulah	1,386	From the Prosunno Nath Roy Fund for the maintenance of the local charitable dispensary.
Nattore	1,400	Ditto ditto.
Serajgunge	250	From the District Fund for the repairs and extension of the dispensary building.
Burisal	800	From the District Fund for the maintenance of the dispensary.
Nasirabad	1,000	From Government for the support of the charitable dispensary and the school
Sherpore	311	From Local Fund. (Purpose not stated.)
Kishoregunge	984	
Patna	22,725	From the Wahabee Fund to meet the preliminary expenses for a drainage and water-supply scheme.
Sasseram	1,200	From the Sasseram Endowment Fund for the support of the Sasseram Dispensary.
Bhagulpore	700	From the District Fund for the maintenance of the dispensary.
Deoghur	904	Rs. 300 from the Pilgrims' Lodging-house Fund for general improvement and street-lighting. Details of Rs. 600 have not been given.

23. The Lieutenant-Governor notices with satisfaction the following gifts of money or land, and works of public utility executed, by private individuals:—Rs. 3,000 out of Rs. 6,300 promised by Baboo Kali Krishna Tagore of Calcutta for metalling a road in the Baranagore Municipality was received by the municipality during the year. In Santipore a large tank was excavated, at a cost of Rs. 3,000, by Rai Ram Kissen Mukerjee Sahib, and another tank by Goondi Moyra, at a cost of Rs. 1,200, for the benefit of the inhabitants generally. The Nawab Bahadoor of Moorshedabad and his grandmother, Nawab Raisannessa Begum Shahaba, contributed Rs. 1,500 and Rs. 500 respectively towards protective works to save the people of the town from floods. In the South Barrackpore Municipality Baboo Behary Lal Pyne made a gift of Rs. 1,000 for the purpose of establishing a public burning-ghât at Sukehar. In the Soory Municipality Raja Ram Ranjan Chakravarty, Bahadoor, of Hetampore, made a donation of Rs. 1,000 towards the support of the indoor ward of the local charitable dispensary. A donation of Rs. 5,000 was made to the Rampore Beaulah Municipality by the Dighapattia Wards' Estate, in commemoration of the marriage of the two elder wards, to be expended on some work of public utility. It has been decided that the money should be spent on the construction of an underground masonry drainage channel for the most insaniary portion of the town. Another gift of Rs. 925 was made to this municipality by Baboo Girish Chandra Dutta, zemindar of Goalkandi, for the excavation of a tank. The Rungpore Municipality received from Raja Govind Lal Roy a gift of a plot of land for public burial purposes. In Furreedpore a sum of Rs. 1,391 was formally made over by the local Jubilee Committee and credited to the Municipal Fund for excavating a tank. Mir Ali Ahmed Chowdhury made a gift of Rs. 1,814 to the Burrisal Municipality for the construction of a cross road connecting the Katpatti road with the Police Line road and a pucca ghât on the east bank of the Police Line tank. Baboo Bishnu Perakash Narain Singh, of Madhubani in Chumparun, contributed a sum of Rs. 6,600 to the municipality for the construction of a serai, of a building for the municipal middle English and vernacular school, and of a municipal garden. In Bettiah, the Maharaja gave a plot of land for the site of a slaughter-house and a public latrine. At Chaibassa Colonel Samuels, the late Deputy Commissioner of Singhbhum, made a donation of Rs. 1,100 for clearing the lake near which the town stands and for repairing the bathing-ghât on it.

24. *Expenditure.*—The total municipal expenditure of the province was Rs. 26,77,511 during 1890-91, against Rs. 30,42,900 in the preceding year, and the year under report closed with a balance of Rs. 3,16,393, against Rs. 4,14,654 in 1888-89. The following comparative statement shows the percentage of the



municipal income spent in each division under each of the principal heads of expenditure during the last two years:—

NAME OF DIVISION.	Income during the year.		General establishment.		Public safety.		Public health.		Public instruction.		Public convenience.	
	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.
	Rs.	Rs.										
Bardwan	6,33,267	6,41,088	10'38	10'38	10'31	8'03	44'7	47'29	6'04	6'21	18'33	17'21
Presidency	3,43,036	3,19,333	10'16	12'06	12'46	7'95	37'48	37'67	3'77	4'14	24'03	24'76
Rajahmundry	2,76,876	2,76,238	14'46	14'37	3'47	3'30	53'11	46'78	3'06	3'06	13'13	13'76
Dacca	2,64,827	2,34,330	10'21	8'37	3'73	3'24	54'43	55'73	3'34	2'49	23'12	17'39
Chittagong	73,459	67,712	9'04	10'01	3'49	2'43	44'45	47'33	17'35	9'78	10'5	19'66
Patna	4,43,470	4,32,101	13'34	12'2	3'49	4'9	44'25	44'2	3'71	3'0	20'18	23'3
Bhagalpore	2,46,446	1,96,418	6'7	12'76	1'31	3'1	43'37	70'42	2'46	3'63	20'19	23'37
Orissa	80,521	86,780	11'03	12'48	3'35	3'30	31'4	50'39	3'96	4'06	24'22	18'66
Chota Nagpore	83,647	65,519	12'6	14'3	1'67	1'3	30'16	34'6	3'15	2'9	15'79	13'6
Average			11'31	12'61	3'27	3'74	47'65	48'04	4'34	4'31	20'39	19'66

25. Here also the fact that the entire area of the late Suburban Municipality has not been excluded from the operation of Act III (B.C.) of 1884 prevents the institution of any accurate comparison between the accounts of 1889-90 and those of the previous year. The statement in Appendix F shows the details of expenditure under each head, division by division. The largest expenditure is incurred on conservancy (Rs. 4,69,867), public works including maintenance and repairs of streets (Rs. 4,57,191), general establishment (Rs. 3,07,495), medical institutions (Rs. 2,30,241), and road-cleaning establishment (Rs. 1,92,741). The chief differences in expenditure, as compared with that of the year 1888-89, in the eight divisions (excluding the Presidency Division) are the following:—

Heads of Expenditure.	Increase.	Amount of increase.
		Rs.
General establishment, including collection charges	...	6,124
Establishment and appliances for extinguishing fires	...	4,491
Street lighting	...	6,198
Buildings and other works	...	12,938
Maintenance of medical institutions	...	5,034
Water-works	...	49,984
Road watering	...	4,554
Conservancy and road-cleaning establishment	...	10,693
Other measures (establishments for markets, slaughter-houses, &c.)	...	13,851
Survey of lands	...	10,707
Decrease.	Amount of decrease.	Rs.
Repairs (to markets, dispensaries, &c.)	...	7,164
Drainage works	...	4,070
Public instruction	...	5,741
Public works (establishment, new works and repairs)	...	27,835

26. The table above shows that the Municipal Commissioners increased their expenditure on works of general utility. As regards the first item, General establishment, deducting Rs. 3,022 on account of the newly-established municipalities which came into operation during the year, there was on the whole a net increase of Rs. 3,102 in the eight divisions taken together. The percentage of charges under this head to the total income of the year in each division is shown in the margin. It is evident that no standard is followed by the different municipalities in fixing the scale or pay of their establishments, and although for obvious reasons one fixed scale cannot conveniently be employed in all parts of the province, it is incumbent on the Commissioners to try and restrict the expenditure on this item as much as

Name of Division.	Percentage.
Bardwan	10'4
Presidency	12'0
Rajahmundry	14'3
Dacca	8'8
Chittagong	10'9
Patna	12'2
Bhagalpore	12'7
Orissa	12'4
Chota Nagpore	14'3

possible. The Lieutenant-Governor desires to take this opportunity to invite attention to the following remarks recorded on this subject by the Commissioner of the Burdwan Division:—

"The examination of the budgets of the municipalities in this Division for the current year brought to light a marked tendency on the part of Municipal Commissioners to give occasional increases of salary to members of the establishments, instead of laying down a fixed scale (with periodical increases, if necessary) and adhering to it. This practice is one which should, in my opinion, be consistently and firmly discouraged, as being unfair to the tax-payers and demoralizing to the recipients. The funds of all the municipalities are very limited in comparison with their wants, and any increase allowed to establishments must necessarily decrease, *pro tanto*, the surplus available for works of general utility. In most cases the proposed increase was disallowed, and the Municipal Commissioners were asked to consider what their requirements were as regards the strength and pay of their establishments, to lay down a scale once for all, and to adhere to it for the future. The spectacle of a municipal subordinate canvassing the Commissioners to vote for an increase to his pay (not fixed by any scale) is not one that is consistent with a proper discharge of his duties."

These observations of Mr. Toynbee are very pertinent, and should be put into practical application in the case of all municipalities.

27. *Street lighting.*—Fifty-nine municipalities, distributed in the divisions noted in the margin, incur no expenditure on this item. In the Rajshahye Division alone all the municipalities have made some attempt at lighting the streets, however inadequate the results may be. Year after year the Inspector-General of Police brings to the notice of Government the disadvantage at which the Town Police have to work owing to the streets in municipal towns being insufficiently lighted or not lighted at all, and there

Name of Division.	Number of Municipalities in which there are no street lamps.
Burdwan	12
Presidency	21
Dacca	3
Chittagong	1
Patna	6
Bhagulpore	4
Orissa	2
Chota Nagpore	8
Total	59

is no doubt that crime is greatly facilitated and much difficulty caused to efficient police supervision by this omission.

28. *Maintenance of hospitals and dispensaries and vaccination.*—The statement in Appendix G shows the establishment employed and cost incurred by the municipalities on account of vaccination and the results of the vaccine operations. The total municipal expenditure on this item amounted to Rs. 16,847, against Rs. 18,047 of the previous year, out of which latter sum Rs. 3,064 represents the expenditure incurred by the late Suburban Municipality during 1888-89. The provisions of the Compulsory Vaccination Act, 1850, are in force in 130 municipalities, and the total number of persons vaccinated or revaccinated during the year amounted to 98,567, of whom 89,753 were successful cases.

One hundred and twenty municipalities maintained 127 dispensaries (including one temporary institution) during the year. The total cost incurred on account of "Medical institutions" was Rs. 2,30,241, against Rs. 2,29,810 of the previous year. The expenditure on this account increased in the Patna Division from Rs. 58,488 in 1888-89 to Rs. 62,433 during 1889-90, and in Chota Nagpore from Rs. 8,276 to Rs. 10,815. There were increases also in Rajshahye (Rs. 1,310) and Dacca. In Burdwan there was a falling off of Rs. 3,216; in the Presidency Division Rs. 4,603, and in Orissa Rs. 802. In the Sooree Municipality one-half of the cost of maintaining the dispensary was borne by the District Board of Beerbhoom, and hence the reduction of expenditure.

29. *Female Medical education.*—The Municipal Commissioners of Burdwan made a provision of Rs. 240 per annum for the education of one girl in the Campbell Medical School in Calcutta; but as no one availed herself of this offer, it was resolved to utilise the allotment in training a nurse at the Burdwan Charitable Dispensary. Their choice fell upon one Scrimati Hemangini Chatterjee, who refused, however, to accept the appointment. They are now trying to secure another duly qualified and trained nurse. In the Pubna district two midwives were appointed, paid partly from the municipal and partly from the district funds. It is stated that, whilst other municipalities in the Division



were ready to incur expenditure on this account, no female students came forward for help, and consequently no help was given. In Burrisal the Municipal Commissioners employed a midwife for the female hospital. There is a female hospital attached to the Bankipore Dispensary, where a trained nurse is employed to look after female patients. Although stipends had been provided for by the municipalities in the Sarun district for female medical students attending the Temple Medical School, no candidates have yet come forward to attend the institution; but the Magistrate reports that the matter has his best attention, and that every endeavour will be made to make the scheme successful. The Lieutenant-Governor regrets that the results should be so discouraging. They corroborate what has come to the notice of Government from other sources, that less interest is evinced in Bengal than in other provinces in India in the furtherance of female medical aid to women. Sir Stuart Bayley hopes, however, that both District Boards and Municipalities will persevere in their efforts to extend female medical enterprise in India.

30. *Water-works*.—The increase under this head occurred mainly in Dacca (Rs. 10,372) and Bhagulpore Rs. (43,939). The Howrah Municipality reduced its expenditure from Rs. 2,471 to Rs. 413. In Dacca the increased expenditure was due to the extension of the water-works in that town, for which a loan of Rs. 1,25,000 has been sanctioned by Government.

31. *Drainage Works*.—The following municipalities show an increase or decrease of expenditure on this item as compared with the previous year:—

Municipality.	Increase.	Decrease.
	Rs.	Rs.
Burdwan	4,255	...
Serampore	2,735	...
Darjeeling	...	7,429
Dinapore	...	7,911
Rampore Beaulah	...	2,271
Dacca	3,383	...
Naraingunge	1,060	...
Patna	...	3,144
Revilgunge	2,343	...
Lalbagh	2,110	...

The decrease in the Darjeeling Municipality is due to the approaching completion of the flagging of its drains, while in Dinapore the falling off was on account of the large expenditure on drains in 1888-89 owing to the munificence of the Maharajah.

32. *Public instruction*.—The statement in Appendix J shows, division by division, the class and number of schools maintained or aided by municipalities, the number of pupils receiving instruction at them, and the expenditure incurred on them; and also the number and class of other schools within municipal limits. It has been compiled in some cases from figures furnished by Commissioners of Divisions, and in others, where this could not be done, or only incomplete information was furnished, from figures obtained from the Education Department. According to the separate report furnished by the Director of Public Instruction, the total expenditure from Municipal funds on education during the year was Rs. 83,000, against an expenditure of Rs. 86,000 during 1888-89. The details are shown in the margin,

	Rs.
Secondary	63,000
Primary	18,000
Female	9,000
Special	1,000
Buildings	4,000
Miscellaneous	3,000

and betray the fact, which was already well known to Government, that the Municipal grants are still devoted as a rule to the maintenance of English education, and that very little assistance is given to primary schools. The Lieutenant-Governor is glad to notice, however, that there is some improvement in this respect, and that Commissioners of Divisions have not been slow to check the tendency of Municipal Commissioners to aid English education at the cost of the rate payers generally, while only a few of the well-to-do class profit by the schools. There are apparently serious difficulties in the way of making the figures furnished by municipalities to the Education Department correspond with those supplied by them to Government; but the matter has received attention, and it is to be hoped that in next year's reports the municipal and Departmental figures will be wholly reconciled.